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THE CANADA LANCET,

A MONTHLY JOURNAL OF

MEDICAL AND SURGICAL SCIENCE.

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Original Communications.

ON THE ACTION OF THE SO-CALLED "INHIBITOR," "ACCELERATOR" AND "DEPRESSOR" NERVES OF THE HEART.

BY THOMAS W. POOLE, M.D., M.C.P.S. ONT.,

(Author of "Physiological Therapeutics.")

Physiological writers invariably teach that the pneumogastric nerves (vagi) exert a restraining or inhibitory influence over the motor ganglia of the heart, whereby its pulsations are normally rendered slower. The reasons assigned for this opinion are, chiefly, that after section of the vagus, in some animals, the heart beats faster, owing to an assumed paralysis of its inhibitory nerves; while the application to the vagi of a faradic current, which is regarded as a stimulant, slows the heart, and if strong enough, arrests it altogether,—owing to an increase of the inhibitory power placing such an embargo upon the motor ganglia of the heart as to render their power ineffectual to continue its action.

In what is to follow, we are about to call this hypothesis in question, and to appeal to authentic physiological facts in so doing.

The vagus is not a simple nerve-cord connecting the medulla oblongata with the heart, on which experiments can be made implicating this nerve alone.

It is in most intimate connection with the roots of the sympathetic in the medulla oblongata, with the fibres of this nerve in the cervical spine, with the cervical (spinal) plexus, with the cervical sympathetic ganglia and the nerve-cords and plexus from these surrounding the great systemic vessels and with the ramifications of the same nerve in the lungs. It materially influences the heart through the respiratory process and the pulmonary circulation; and it is, besides, in reflex relation with the splanchnics,—the chief vaso-motor nerves of the

abdominal viscera. Indeed from the medulla oblongata to the splanchnics, embracing the vagus and the intermediate spinal and sympathetic nerve centres, we have a great nervous circle, the several parts of which are *en rapport*, reflexly, and so mutually influence each other, that it seems impossible to disturb the functions of any without causing a perturbation in the whole.

It has been demonstrated that in so far as respiration is concerned, the vagi are sensory or centripetal nerves, and act reflexly through the medulla and cord on the phrenic and other motor nerves concerned in respiratory action.* There is proof that the vagi, instead of being direct motor nerves of the heart (as their assumed inhibitory action necessitates) have centripetal functions as regards the heart also, and modify its action, when they do so at all, indirectly through the cord, the sympathetics and the nervous circle referred to above. This proof consists in the fact that section of the vagi has no effect on the pulse, if the cord below the medulla be previously divided:†—this operation effectually cutting off the channel of its reflex action through the circle mentioned.

We shall have to show, by and by, on direct physiological authority, that neither the so-called "accelerators," nor the "depressor" exercises any *direct* influence on the heart's action; but that in so far as they modify it, they do so solely through "the peripheral circulation." This being the fact in regard to the "accelerators," which are simply a part of the sympathetic vaso-motor system,—and the fact being also shown that the pneumogastrics excite or depress this system through the medulla or spine,—all that is necessary to do is to shew that impressions made on the pneumogastrics are of a stimulating or paralyzing kind, in order to account for the vascular effects which follow.

Section of the vagus, we claim, sends a wave of molecular disturbance through the sensory or centripetal fibres of this nerve, which acts on the vaso-motor centre of the medulla oblongata as an irritation, equivalent to excitation, and is reflected as such upon the vaso-motor nerves of the cord and sympathetic ganglia, as a result of which the peripheral arteries are dilated. As a consequence, the transmission of blood through the systemic channels is facilitated, blood pressure falls, from lessened

* Handbook for the Phys. Lab., p. 336. Prof. Kuss, Lec on Physiol. Duval, Amory., p. 336. † Handbook, etc., p. 284.

arterial tension; and the cardiac muscle having a lighter load to lift, is driven faster by its own motor ganglia. Here, we submit, is the true physiological explanation of the increased frequency of the heart after section of the vagus.

We have elsewhere ("Physiological Therapeutics") produced able authorities for regarding section or mechanical injury of nerve tissue as equivalent to an excitation of its functional activity: and we are glad now to be able to add additional examples of its being so regarded by other Physiologists of distinction. Thus Dr. Ferrier in experimenting on the brain of a monkey, attributes a marked excitement of the sexual appetite to the effect on adjoining brain tissue of cutting away and removing the occipital lobes, although at the time the animal was much prostrated.* And Dr. Burdon-Sanderson regards excision of the sinus venosus of the frog's heart (preferably by a blunt scissors) as a source of excitation to the neighboring ganglion of the septum.† We may remark, in passing, that this additional evidence not only sustains what is said above as to excitation attending the section of the vagus, but it furnishes a valuable confirmation of the view propounded in our published work, that section of the cervical sympathetic produces dilatation of the cerebral arteries, not by paralyzing that nerve (as is generally assumed), but by exciting it. And we may add that the effects of section of the splanchnics in accelerating the heart's action‡ just as section of the vagus does, admits of a similar explanation; the excitation of the splanchnics acting reflexly on the vaso-motor branches of the thoracic sympathetics, through the great nervous circle referred to above.

The theory of Physiologists as to the inhibitory power of the vagi rests in no small degree on the fact that faradization of the vagus arrests the heart: and as faradization is regarded as equivalent to "excitation," in order that the heart may be stopped by a "stimulus," it is necessary to assume that it is the antagonists or inhibitors of the motor power of the heart which is thus excited.

In order to render the facts intelligible it is necessary to remember that in frogs (the animals on which these experiments have been chiefly performed and the action of whose hearts is best understood), the contractions of the heart originate

in the sinus venosus, or large vena cava, close to the auricle into which the entire venous supply empties. The sinus venosus is consequently regarded as the seat of the chief motor ganglion of the heart (Remak's). Close to the junction of the sinus with the auricle, and in the auricular septum, a ganglion of inhibitory power is hypothetically located (Ludwig's). The office of this is supposed to be to restrain or inhibit both the motor ganglion of the sinus and a second motor ganglion (Bidder's) at the junction of the auricle with the ventricle. The vagus is believed to pass into the heart close to the ganglion of the sinus, to which it sends branches, and to terminate in Ludwig's inhibitory ganglion. Faradic "excitation" of the vagus, or of its terminal inhibitory ganglion, is said to arrest the heart in the manner stated. So much for the aspect of the case, as seen by the Physiology of the day

We have elsewhere ("Physiological Therapeutics") produced substantial evidence that electricity is not an exciter, but a paralyzer of nerve tissue; and without delaying to refer to the proofs of this statement here, we proceed to apply this view of its action to the case before us.

Weber found that when faradization was applied to the ventricle of the heart "the irritated portion, little by little, contracted till it took no part in the rhythmical heart movement." Applied to the bulb of the aorta "the pulsations of the entire heart became more active and stronger," owing doubtless to the sudden contractions thus produced in the aorta aiding in the propulsion of its contained blood. Here the motor nerves of the heart were uninfluenced, but on the application of the electrodes to the vena cava (sinus) "the heart after a few seconds stood still, and began again to pulsate some time after the removal of the irritation, and then in a slower rhythm.* When to this is added the well known fact that faradization produces spasmodic contractions in muscular tissue everywhere, proportionate to the strength of the current, we are prepared to account for the arrest of the heart by electricity as follows:

It is evident that it is through the sinus venosus that the effect in question is produced,* and as this is believed by Physiologists to be the seat of the chief motor ganglion of the heart, the arrest of

* Functions of the Brain, pp. 197, 198. † Handbook, etc., p. 278. ‡ Handbook, etc., p. 259.

* Hammond's Trans. of Meyer's Elec. in Prac. Med., p. 80. † Handbook, etc., p. 276.

the organ is accounted for by *direct paralysis of this motor ganglion*.

But the heart is also brought to a standstill, if by pressure, ligature, or other means, the contact of blood with its interior or endocardium is prevented.* Perhaps it would be better to say, the heart is arrested when its interior motor ganglia are no longer supplied with the blood and pabulum on which their generation of the necessary nerve force depends. This deprivation of blood either to the endothelium or to the ganglia, or to both, is brought about by the spasmodic constriction of the sinus at the point of its entrance into the auricle, which is the spot faradized in the experiment, as stated by Dr. Burdon-Sanderson.† When the spasm has time to relax,—in other words when the paralyzed nerves of the part have time to recover, as they slowly regain their wonted power, they are able to restrain the contractile power of the muscular fibres of the orifice, to dilate it, and as blood again enters the heart, and reaches its ganglia, its pulsations are gradually resumed, as recorded by Weber. Doubtless both the direct paralysis of the motor ganglion and the constriction of the crifice of the sinus act together in arresting the heart, and surely either view is as natural and as truly physiological as to assume that in a conflict of antagonizing nerves in the heart, one overpowers the other. The force of this last remark is heightened when it is remembered that the faradic "excitation" is really applied in closer proximity, if not directly to, the motor ganglion in the sinus, than it is to the inhibitory one in the septum, and yet of the two, it is only the latter which is "stimulated." Had the motor ganglion of the sinus been also "excited," and it is really difficult to see how it could escape, the two rivals might have fought it out indefinitely!

As to the arrest of the heart by faradization of the trunk of the vagus, it might suffice (in view of the facts elsewhere presented) to point to a paralyzing wave transmitted to the same chief motor ganglion; but the compound functions of the vagus and its extensive connections render it highly probable that the arrest of the heart is here due to a combination of causes.

The reader of Prof. Kuss's excellent Lectures on Physiology (Duval, Amory) will find a reason for the arrest of the heart by faradization of the vagus, altogether apart from any inhibitory influence of

this nerve, in the spasm produced by that agent in the diaphragm and expiratory muscles, resulting in compression of the heart and serious disturbance in the relative pressure at the arterial and venous extremities of the circulating current. Thus the highest point of blood pressure is at the origin of the aorta, where it may be represented as 1-4th or 25-100ths of the weight of the atmosphere: the lowest is at the entrance of the vena cava into the right auricle, where it may be set down at 0. Spasm of the expiratory muscles, or a very violent effort at expiration, raises blood pressure at the latter point from 0 or 1-100ths of the atmosphere to 16-100ths, "an enormous pressure for this part of the circulatory system, an essential feature of its working condition being the absence of all pressure." So soon as this pressure in the vena cava becomes equal to that in the aorta, the circulation ceases,* and Weber has shown that the effects of a very forcible expiration (which is equivalent to a much less spasm of the expiratory muscles than that produced by faradization) slows and soon stops the heart.†

While faradization of the central end of the cut vagus, and especially of its superior laryngeal branch, affects respiration in the way just indicated through the medulla oblongata, and the circuit of the phrenic and other motor nerves of respiration (Kuss, 336),—faradization of its peripheral end, which ramifies in the lungs, and there, as elsewhere, is intimately associated with the sympathetic,‡ cannot fail to produce contraction of the muscular fibres of the pulmonary tissue, especially that of the envelope of the alveoli, known as "the muscles of Reissesen,"|| thus preventing access of air to the cells, which of itself suffices to arrest the circulation, and with this, the heart's action. But paralysis of the vagus, through its connection with the sympathetic at various points in the thorax as well as in the lungs, may be held to paralyze also the dilating power of the pulmonary vaso-motor nerves; contraction of the pulmonary vessels necessarily follows, arresting the circulation, which in turn is followed by speedy cessation of the heart's action.§ This explanation suffices for the arrest of the heart by faradization of the vagus without invoking any "inhibitory" motor power on the part of that nerve, and is the more feasible in that it is

* Handbook, etc., p. 218. † See Prof. Kuss, Lectures, etc., pp. 143, 313, 314. ‡ Dr. Carpenter's Phys., p. 155. || Prof. Kuss, p. 226. § Dr. Carpenter's Human Phys., p. 536, etc.

* Euss, Physiol., p. 160. † Handbook, etc., p. 276.

strictly in accord with physiological principles, and moreover accounts for the arrest of the heart in diastole; the right ventricle being found choked with blood in consequence of its being no longer able to empty itself into the vigorously contracted pulmonary vessels.

Confirmatory proof of the position here assumed is found in the fact that not only does faradization of the vagus arrest the heart in diastole by its centripetal action, but faradization of the mesenteric nerves produces the same effect. The mesenteric nerves communicate with the vagus in the solar plexus, and are also in communication with the aortic plexus;* but that the effect in question is produced not directly on the heart, but through the centripetal channel of the vagus, the medulla, the spinal cord and the nervous circle referred to, is proved by the fact that previous section of the vagi, or of the cord below the medulla, prevents faradization of the mesenteric nerves from thus arresting the heart.†

Now this reiterated proof of the centripetal action of the fibres of the vagus through which these results are produced, shows that this nerve is not the channel for a peripheral inhibitory motor influence between the medulla and the heart, as its assumed inhibitory power necessitates it to be. Seeing also that besides the vagi, the sympathetic furnishes the only other medium of communication between the cerebro-spinal centres and the heart,‡ it is evident that it is through the sympathetic the heart is influenced in these experiments; and as already remarked, we shall see in treating of the "accelerators," which are a part of the sympathetic, that their influence over the heart is no more direct than that of the vagus, but is solely exerted, in the words of Physiologists, "through the peripheral circulation." We therefore claim that the physiological facts demonstrate, not only that the vagus is not an inhibitory nerve of the heart, but also that the vagi and so-called "accelerators" are not rivals or antagonists in influencing the heart, as is commonly asserted.

It is a little remarkable that while faradization of the vagus, or sinus venosus, arrests the heart's action, this result does not occur, if in a frog, $\frac{1}{1000}$ th of a grain of atropia or less, is first introduced into the circulation. The problem for us here, is, why

a paralyzer like atropia should prevent the effects of faradization, which we hold to be also a paralyzer of nerve tissue.

The explanation of the Physiologists is, that faradization is a stimulus, and stops the heart by exciting Ludwig's inhibitory ganglion, which in consequence, puts such an embargo on the two motor ganglia as to arrest their activity and so stops the heart: that atropia, by paralyzing this inhibitory ganglion, renders the subsequent excitation of faradization powerless, and the motor ganglia being unopposed, the heart continues to beat.

The chief objections to this explanation are:

That it necessitates two systems of motor nerves of antagonistic function.

It requires that the circulation of poisoned blood should paralyze one portion of nervous tissue and not another, in close proximity in the same organ, from the same dose and at the same time.

It requires that the faradic current should excite one nerve ganglion, and produce no effects on another in closer vicinity to the point of contact.

If the inhibitory ganglion be paralyzed by the atropia, and if electricity be a "stimulus," having an affinity for that ganglion, it ought to counteract the paralyzing effects of the atropia, and, (on the theory) still arrest the heart.

If the faradic current fails to excite the inhibitory ganglion because it is already paralyzed, why does it fail to excite the motor ganglion of the sinus, (which is assumed to be unaffected by the atropia,) and so drive the heart faster?

The explanation is not in accord with the centripetal relations of the heart with the medulla through the vagus.

There is besides the anomaly of predicating the *arrest* of the vital activity of an organ by *exciting* a portion of its mechanism. What would be thought of a theory for bringing a horse to a standstill by applying a particular kind of spur, or applying it in a particular place?

The explanation of the problem which we have to suggest is necessarily a matter of inference rather than of demonstration. It is that atropia may produce such a change in the molecular condition of the nervous (motor) ganglion of the heart, and of the vagus or spinal centres, as to prevent electricity from inducing in them its ordinary molecular disturbance, and that as a consequence it fails to produce its characteristic effects on the

* Wilson's Anatomy, pp. 407, 441. † Dr. Burdon-Sanderson, Handbook, etc., p. 233. ‡ Handbook, etc., pp. 286, 287.

nerves or muscles subjected to its influence. It is favorable to this view that in subjects profoundly ætherized or chloroformed, or under the influence of nicotine or morphia, faradization of the nervous convolutions of the hemispheres fails to produce its usual effects in inducing characteristic contractions of corresponding muscles of the trunk and limbs; and Lauterbach has "no doubt that all substances which destroy sensibility prevent these movements."*

The vagus and heart are not alone in displaying this peculiarity of the action of atropia. Thus the contractions in the muscular fibres of the intestines ordinarily produced by faradization of the splanchnic nerves are also prevented by previous injection of atropia;† so that whatever be the explanation of the fact, the effect produced by atropia is of a general and not merely a local kind.

Other curious effects of drugs on the heart, arising from their mutual antagonisms in the blood, or in the nervous system, furnish subjects for ingenious speculation, but we defer special reference to these until further light is thrown on their action.

The argument that arrest of the heart in diastole, by faradization, is not the result of an inhibitory action exerted through the vagi, and even *that the vagi are not the channel through which the heart is arrested at all*, finds also strong confirmation, if not actual demonstration, in the further fact, that *the heart is similarly arrested in diastole* by such drugs as aconite (1), veratria (2), jaborandi (3), calabar bean (4) and chloral hydrate (5) *after the vagi have been cut or otherwise paralyzed*, as by curare, etc.

In concluding this part of the subject, we need hardly remind the intelligent reader, that a system of inhibitory centres and nerves is purely hypothetical, is unknown to the keenest anatomist, and owes its place in physiological records solely to the exigency of the vaso-motor theory at present in vogue. Nor has this appendage of the vaso-motor theory been allowed to pass unchallenged. The existence of such a system was doubted by Dr. Anstie, and repudiated by other eminent men, such as Lister, Edes, Piotrowski and Handfield Jones; and Dr. Anstie states that there is not a single one of the strongest instances of apparent inhibitory

action that has not been "challenged by experimenters of repute."*

(To be concluded in our next).

ANTISEPTIC PRINCIPLES IN SURGERY.

BY THOS. S. WALTON, M.D., L.R.C.S., EDIN., PARRY SOUND, ONT.

It has occurred to me to offer for publication the following account of a case which illustrates in a marked manner the glorious results of antiseptic principles, even when Lister's method cannot possibly be applied. It is all very nice and interesting to read of formidable operations being performed in a well-appointed hospital, where under carbolic spray, antiseptic gauze, and salicylic wadding provided by munificent revenues, the surgeon's anxieties are reduced to a minimum and the patient's chances raised to the maximum. But with the backwood's surgeon, too often poor in pocket, with long miles, rough roads, and deep mud holes between him and his poor, and worse, ignorant, patient and attendants, the case is very different. Still let such an one take courage. Antiseptic principles applied under circumstances and with appliances that would shock Lister to the utmost point of disgust, will produce marvelous results in the way of saving life and relieving suffering. The following case is given wholly and simply to show that the minute details of Lister's method, though admirable, and to be observed when possible, are not absolutely necessary to the most complete success.

On the 25th Sept. I was called to attend S. B., æt 35, reported to have been shot by a rifle ball in the upper part of the thigh. S. B. is a "hard case," living 9 miles from my residence, which again is 65 miles from the nearest railway station. I found his house characterized in an especial manner by squalor, filth, poverty, and uncleanness. Built on a sandy soil it was totally destitute of anything like a drain, and was surrounded by the accumulated abominations of about 10 years. The patient was lying on a mattress of marsh hay, the slightest movement of which raised a dust which scientists would justly call "septic." While walking in the woods a Snider rifle had exploded behind and within 8 feet of him. The ball had entered a little

* Amer. Jour. of Med. Science, Oct. 1877, p. 334. † Ringer's Therapeutics, p. 461. (1) Dr. Ringer's Therapeutics, p. 306. (2) *ib.*, pp. 377-8. (3) *ib.*, 474. (4) Braith. Retros. (Dr. Fraser) Jan. '71, p. 276. (5) Dr. Ringer, *ib.*, p. 301.

* (Neuralgia p. 193-4).

below the tuberosity of the right ischium, and passing downwards and forwards had emerged in front, at a point about the junction of the upper and middle third of the femur. Shortening of the limb and immobility of the great trochanter when the knee was moved, were sufficient proofs that the thigh was fractured.

I bandaged the limb to a long splint extending from the axilla to the heel, applied carbolic dressing to the wounds, administered an opiate, and returned home. Pulse 100, temperature, normal. Patient anxious, yet hopeful.

Sept. 26th. Found limb much swollen; pulse, 120. Had to roll the patient on his left side in order to get at the posterior wound. On introducing probe found shattered pieces of bone, but none near enough or loose enough for extraction. Took some broom wire wound it spirally round a stout knitting needle, and then slipping it off the needle, insinuated it into a piece of india rubber tube, same as is used for infants' feeding bottles. I immersed this, as indeed all instruments employed, in a 1 to 40 solution of carbolic acid, and introduced it to a depth of 6 or 8 inches into the wound, and by means of a common glass syringe, with its nozzle inserted into the external end of the rubber tube, was able easily to wash out the whole of the ball track with a 1 to 40 solution of carbolic acid. I then placed a pledget of lint soaked in the same on the wound, and covered it with salicylic wadding. Previous to laying the patient again on his back I treated the "septic" mattress to a liberal sprinkling of carbolic acid. Sprinkled rags also with the same, and placed them between his thighs and every convenient place about the wound. Spread me also on the floor under the bed. In fact we did all we could to impregnate and surcharge the air about the wound with the vapor of the antiseptic. As the opiate by the mouth had not acted kindly, we injected subcutaneously $\frac{1}{4}$ of a grain of sulphate of morphia.

Sept. 27th. Pulse 100; temperature normal; free from great pain; had been rather wakeful. We were pleased to observe a well-marked odor of carbolic acid on raising the bed-clothes. Repeated the washing out of the wound and applied dressing as before. Taught the attendants to inject subcutaneously the morphia, which was increased to $\frac{1}{2}$ of a grain, and ordered it to be repeated every 8

hours. Also gave ʒij. of whiskey every two hours, a "hair of the dog that had often bitten the patient."

Sept. 28th, 29th, and 30th. Profuse discharge of pus; no bones presenting or within easy reach; condition fair; pulse 100.

Oct. 1st. Slight rigors and increase of pulse to 120, with nausea, caused me to fear septicæmia. Washed out the wound twice daily, and was more profuse with the use of the carbolic acid. Increased the morphia to $\frac{1}{2}$ and ultimately to $\frac{3}{4}$ of a grain at each subcutaneous injection.

Oct. 2nd. No more rigors; pulse 90. Some pieces of bones were within reach and we extracted them.

Oct. 3rd. Condition same as yesterday; extracted more pieces of bone. From this onward the patient continued to progress favorably. From first to last I extracted 53 pieces of the shattered femur, weighing $3\frac{1}{4}$ ounces.

During the course of the case a perfect love was developed for the morphia injection. The pricking of the syringe needle was the joy of his heart, and a woefully sorrowful man was he when at last I pocketed the syringe, and firmly refused to supply him with any more of his "joy." Any time during the next few days he would have sold his farm for some morphia and a syringe, but he was isolated and I was firm, so the craving wore off without the slightest bad result. He can now walk comfortably and quickly, with the right leg three inches shorter than its companion.

Such is a brief account of the successful practice of Lister's principles in the backwoods. If, after thanking God for his recovery, the man is inclined to reverence any earthly thing, I have advised him to erect a shrine, and enclose within it the materials for antiseptic treatment, together with his "joy," the morphia arrangement, for I am convinced that these alone, under many and painful disadvantages, saved life and limb.

Correspondence.

To the Editor of the Canada Lancet.

SIR,—Permit me to call the attention of the profession to the Council of the College of Physicians and Surgeons of Ontario. This was formed in the interest of *three* different parties,—the public, the profession, and the students.

A young man graduating honorably at some

Canadian university, goes home, and after spending time and money, becomes a member of the Royal College of Physicians or Surgeons, London. How is he greeted on his return? As a criminal, unless he submits to (for him) a degrading examination; if he will not so submit, the public lose his services, which loss is not for their benefit.

The benefit to the profession is supposed to be protection; it has harried a few miserable old women; it has driven out of the Province some scamps who would soon have been in the Penitentiary. Forty years' service has convinced me, that all the protection a man requires he can have within himself; his skill and attention to his duties are all he wants.

As for the benefit to the students, I do not suppose it possible to find one (passed or rejected) outside of a lunatic asylum, who pretends to say he has, or ever will have, derived the slightest assistance from the Council. On the contrary, it is a most serious injury to them, breaking up their summer's course of study.

Let the working of this wonderful machine be looked into, and let us see how the examinations are conducted. With the extraordinary mania of the Council for muddling everything they touch, they here carry it to perfection. First, they appoint the latter part of the month for holding examinations, then, next year, they change it to the early part. Then they insist on four annual examinations, instead of primary and final,—when the different schools, altering their rules, also adopt the same. The Council then wait till the students get into harness, when, like spoiled children, they cry out again for primary and final. In all their examinations they manage to have some subject the schools, that session, do not lecture on. We must also remember that the examinations are not practical, but simply a re-hash of the ones the student has already gone through. The examiners may all be men of honor and skill, but what certainty has the young man that he will have a fair chance, if his school is not represented? Let us look at the composition of the Board. Eight men, who must each and every one have the most perfect knowledge of the twelve different subjects these students are to be examined on, because they (the eight) and not the examiners reject or accept. Is it possible to find eight such men? If

they are to be procured, they must be the most wonderful eight men that have ever existed.

The law of the Council gives the right of appeal; but how is this managed? Like everything else, it is muddled. The student attends after sending his notice and all his papers, but the examiner does not, and how on earth can an appeal be carried on when one of the two parties does not attend? Then, Sir, look at the extra expense to students—rail and hotel bills, to find their names posted up on the Registrar's door as passed; surely even the successful ones might be notified.

Let there be a fair and temperate examination of this Council, remembering the saying of a learned judge: "How can you expect corporations to be just; they have no bodies to be kicked in this world, and no souls to be d—d in the next. How can they be just?" It is easy to see it will require firm and united effort to compel this institution to do what is right. I am sure nine-tenths of the profession will bear me out, when I affirm that the community is totally indifferent to the benefit it is said to receive; that the practitioners treat it and its doings with the most perfect contempt, and that the students, one and all, abhor the very name of it.

I am not exaggerating when I say, that there is more trouble and annoyance from this examination, both to students and their teachers, than there is in passing a first-class examination at any real medical school, before examiners specially trained. And then when all this has been done and *pater familias* paid away a considerable sum, what has been gained?—a licence to practise in Ontario, and nowhere else.

I am, Sir, yours truly,

F. C. MEWBURN, M.D.

June 16th, 1879.

A SKILFUL OPERATION.

To the Editor of the CANADA LANCET.

SIR,—I send you herewith the following which is taken from the *Huron Expositor* of a recent date. Be kind enough to give it the benefit of comment in your valuable columns.

Yours truly,

A PRACTITIONER.

A SKILFUL OPERATION.—A very skilful and delicate surgical operation was successfully per-

formed, a few days ago, by Dr. Vercoe, of Seaforth, assisted by Dr. Coleman, on a child about two years of age, son of Mr. Wm. Box, of this town. The little fellow contracted a severe cold, which turned into croup. All ordinary remedies were unavailingly tried to relieve his sufferings, and death from suffocation seemed inevitable. As a last resort, the operation was performed. An incision was made in the wind-pipe, and a tube was inserted. This gave almost immediate relief, and in 10 minutes after the operation, the sufferer was sleeping soundly. This tube was allowed to remain in the wind-pipe for three days, and during that time respiration was entirely through it. After it was removed the child breathed through the natural organs, and is now nearly recovered. This is the first time this operation has been performed in this section of country, and the success which attended it, is alike gratifying to the parents of the child and to the practitioners. This gratification is all the more enhanced in consideration of the fact that the disease, membranous croup, is almost invariably fatal except this operation is performed. The danger and delicacy of the operation, also, will be apparent from the recognized fact among medical men that only one out of four recover, even after the performance of the operation; but, even in the event of the operation proving fatal, the death is much less painful than when caused by suffocation. The medical gentlemen above named are entitled to the greatest praise for the skill displayed, as had it not been for this operation the child would assuredly have died after a few hours' intense suffering.

[It is some time since we have had occasion to animadvert on the subject of newspaper advertising. This is, however, so glaring a case, and bears upon its face so unmistakably the evidence of its origin, that we cannot refrain from giving it that publicity it so richly merits. The editor of this enterprising paper must indeed be a rare genius, if, without any assistance, he penned the above notice. We would desire to exonerate Dr. Coleman from any complicity in this matter, as we have every reason to believe that he is entirely above suspicion.—ED. LANCET.]

Selected Articles.

FATAL EFFECTS OF CHLORATE OF POTASSA.

Dr. A. Jacobi communicates the following to the N. Y. Medical Society.—*Med. Record*, March 15th, '79.—Lacombe had under observation a man who took one ounce of chlorate of potassa, intending to

take an ounce of the sulphate of magnesia. The man died in convulsions, after having purged very freely, and the cause of death was regarded as *excessive diarrhoea*. The probability is that it was a case of nephritis.

Isambert, in his first reports upon the effects of chlorate of potassa, published more than twenty years ago, found among its effects increased diuresis, a sensation of heaviness and dragging in the lumbar region, such as is found after the administration of large doses of nitrate of potassa.

Ferris reports a case of death from cyanosis, with absence of pulse, within a period of thirty-six hours after taking a tablespoonful of the chlorate of potassa.

He found the ventricles of the heart empty and contracted, while the auricles were distended with dark blood. The kidneys were not examined.

When I myself, nearly twenty years ago, took single half-ounce and six-drachm doses of chlorate of potassa, I had a sensation of heaviness and dragging in the lumbar region, and increased renal secretion. I did not examine for albumen.

The case of Dr. Fountain, of Davenport, Iowa occurring at the very same time, is well known. He experimented upon himself, taking over an ounce of the chlorate of potassa, and died within four days of nephritis.

I have also, before this, referred to one of my own cases; it was that of a man of thirty-odd years, who was told to use internally ten drachms of the chlorate of soda, within six days. Instead of that he took the entire quantity within six hours. Within twenty-four hours he suffered from diffuse nephritis. What little urine he passed was smoke colored, and afterwards black. It contained a large percentage of albumen, blood, hyaline and granular casts. Then there was complete suppression. There was vomiting and diarrhoea, headaches, and coma. He died upon the fourth day, and the post-mortem examination exhibited acute diffuse nephritis.

Dr. J. Lewis Smith, in a meeting in which the above statements of mine were referred to, reports a case of a child three or four years of age (see *Med. Record*, p. 398, 1878), who took three drachms of the chlorate of potassa in one day. After that only a few drops of bloody urine were discharged, and the child died at the end of twenty-four hours.

In the same number of the same journal, Dr. Hall reports a case of a child under one year of age, who took one drachm of the chlorate of potassa in a single night, and with exactly the same symptoms and the same results.

Conrad Kuster (*D. Zeitsch. f. prakt. Med.*, 1877, No. 33), for no other purpose but to prove the essential identity of punctated, maculated, membranaceous, croupous, and nephritic forms of diphtheria—similarly to most writers since Bard, Bre-

tonneau, and myself amongst many—reports the following cases :

A young woman of twenty, vigorous and blooming. Mild angina. Small, white specks on tonsils. Feels pretty good. A strong solution of chlorate of potassa for gargling and internal administration. No doses, however, reported. The doctor found her dying at daybreak the following morning. Relatives said that vomiting and diarrhœa commenced in the evening, but that they all slept and were awakened in the morning by the laborious breathing of the patient. No post-mortem examination was made; urine was not obtained. There was no dropsy, but the skin exhibited a peculiar husky hue.

A man of thirty, in vigorous health. Trifling maculated diphtheritic angina. Strong solution of chlorate of potassa as a gargle and internally line-water, besides. The tonsils cleared rapidly, but some malaise all the time. Urine albuminous. The doctor learned that the urine was peculiarly black on the third or fourth day. Gradual improvement, but urine albuminous a year and a half after.

A boy of three years, in good health; very mild, punctated, diphtheritic angina. Two other children had diphtheria seriously half a year previously, one of which died of laryngeal diphtheria. Gargle and administration of a strong solution of chlorate of potassa. Next day the doctor was notified the child was dying, and had passed black urine. So it was. The urine *was* black, a little greenish hue, moderately albuminous, the surface bluish white, the child dying. A good deal of vomiting. No dropsy. No post-mortem.

A girl of four, also robust and vigorous. Mild angina, some trifling whitish marks, hardly visible in the tonsils. Gargles and administrations of chlorate of potassa in strong solution. Appears nearly well, both locally and generally, within two days. But in the afternoon very suddenly vomiting, yawning, apathy, bluish-white complexion, accelerated compressible pulse, skin cool. In the evening some urine, black with greenish hue, albuminous, contained hematine. On the following days the color became more normal, and albumen less. On the fifth day the danger was over, but the pulse remained frequent a long time. No dropsy. A slight return of albumen on the sixteenth day.

Now Dr. Kuster claims all of these cases as acute nephritis, and adds verbatim: "There is here a peculiar resemblance to renal irritation in carbolic acid poisoning. One is reminded of a medicinal poisoning, and would presume its presence if *carbolic acid had* been used for external application. In my cases the substance irritating the kidneys could be none but the chlorate of potassa. However, as this effect of chlorate of potassa has not been observed, as nephritis in diphtheria is, besides, nothing

unusual, the latter must be claimed as the cause of the accidents."

Kuster's facts are correct, his theory is not. His cases were mild, all of them tonsillar, no general symptoms, no adenitis. In fact there is no, or very little, lymph-vessel communication between the tonsils and the rest of the body. Two of his four cases terminated fatally in a very short time, two barely escaped. The same symptoms, the same nature of the disease in all. The cases seemed to the author like so many of poisoning by medication, and so they were. Unfortunately the author, otherwise known as careful, earnest, and conscientious, reports no doses, but in every case he speaks of *strong* solutions of chlorate of potassa, which appear to have been used rather indifferently or indiscriminately. If you have followed my remarks, and compare my own cases with his, and if I remember how deeply impressed many of my professional brethren were when I first mentioned his experience in public and in print, all of us will not hesitate to look upon his cases as such, of acute nephritis brought on by excessive doses of chlorate of potassa.

After all the previous remarks, the practical point I wish to make is this, that chlorate of potassa is by no means an indifferent remedy; that it can prove, and has proved, dangerous and fatal in a number of instances, producing one of the most dangerous diseases—acute nephritis. We are not very careful in regard to the doses of alkalies in general, but in regard to the chlorate we ought to be very particular. The more so as the drug, from its well-known either authentic or alleged effects, has risen, or descended, into the ranks of popular medicines. Chlorate of potassa or soda is used perhaps more than any other drug I am aware of. Its doses in domestic administration are not weighed but estimated; it is not bought by the drachm or ounce, but the ten to twenty cents worth. It is given indiscriminately to young and old, for days or even weeks, for the public are more given to *taking hold* of a remedy than to *heed warnings*, and the profession are no better in many respects. Besides, it has appeared to me, acute nephritis is a much more frequent occurrence now that it was twenty years ago. Chronic nephritis is certainly met with much oftener than formerly, and I know that many a death certificate ought to bear the inscription of nephritis instead of meningitis, convulsions, or acute pulmonary œdema. Why is this? Partly, assuredly, because for twenty years past diphtheria has given rise to numerous cases of nephritis; partly, however, I am afraid, because of the recklessness with which chlorate of potassa has become a popular remedy. Having often met medical men unaware of the possible dangers connected with the indiscriminate use of potassa or soda, I thought this Society would excuse my bringing up

this subject. It may appear trifling, but you who deal with individual lives, which often are lost or recovered by trifles, will understand that I was anxious to impress the dangers of an important and popular drug on my colleagues, and through them on the public at large.

COMPRESSION OF THE AORTA IN UTERINE HEMORRHAGE.

Dr. Griffith reports the following in the *Obst. Jour., Great Britain and Ireland*:

Without any prelude as to various methods of treating this affection, I will cite a case which occurred in my practice some years ago, and by which I was first taught the expedient that I then adopted. Mrs. C., aged about twenty-eight, was in labor with her third child, when I was called to attend her; she was strongly built, bright, florid complexioned, and brave-hearted, having no fear for herself in her labor. The child was born naturally, but rather quickly; the secundines came away easily, and the uterus contracted nicely. I was getting the binder ready when, as I looked at her, she rapidly turned white, and was evidently getting into a state of excessive faintness; she did not speak; she did not even utter a cry; a heavy sigh escaped her lips; and she lay apparently lifeless. I thought she had died suddenly.

Suspecting hemorrhage, I quickly laid my left hand on the abdomen in order to grasp the uterus, while with my right I raised the clothes. A stream of bright-colored blood had suddenly flowed from her, and more was freely pouring away from the vagina. At once, without letting go my grasp of the womb, I lowered her head, turned her as gently as possible on her back—she had been on her left side—and when she was in this position I embraced the womb with both hands, making it contract somewhat, and moderating, though not checking, the flow. I saw my patient was fast sinking, and then thinking that sudden anemia of the brain, or sudden failure of the heart, from want of proper stimulation of the cardiac nerves, owing to excessive and rapid blood loss, would be the occasion of death, and feeling the aorta thumping at my hands, as it laboringly pumped on the blood, I bethought me of the treatment which I adopted. The very action of the great blood vessel striking my hand forcibly suggested to me to try the tourniquet principle on it, and thereby arrest the bleeding, and the death, apparently speedily imminent. Accordingly I buried my hands in the abdomen, working my fingers amongst the intestines, till I could well encircle the aorta; this done, there was an effectual arrest of hemorrhage. I maintained the compression, till I found that the bleeding did not return on relaxing my hold, that the uterus was firmly

contracted, and that the color had come—even though very faintly—back to the patient's face. She drew a few long breaths; she sobbed a few times, opened her eyes, looked languidly around as though she were unconscious of what had occurred, and was not aware of her present condition; and thus slowly she returned to life. Very carefully I bound her up, and had her carefully tended all that night and for many succeeding days; and she recovered with not a bad symptom, the protracted convalescence and the peculiar bleached, waxy hue, which results in all such cases, being the only apparent consequences of her narrow escape.

Ever since I successfully attended this patient, when I am confronted with profuse blood loss, sudden faintness, or any other symptoms calling for treatment identical with what I pursued in this case, I do not hesitate to put the same into execution. In some cases it is not practicable, as, for instance, when the person is stout, there being a thick tegumentary covering of fat; or where the omentum is loaded with adipose tissue; or where the abdominal walls are large, loose, and pendulous; or where excessive pain is felt from the manipulations necessary for the aortic compression; I, in these cases, grasp the uterus as firmly as I can, and by means of it I compress the artery against the back, thus substituting the uterus for the hand, as the compressing medium. This plan, when I could not employ the former, I have found to act very beneficially. When the patient is thin, the aorta will readily be commanded; and in some with even greater facility than with others; and and there are persons in whom the abdomen being large, and the integument loose, the uterus can be readily turned out of the way, and the aorta easily encircled.

Where the aorta cannot be compressed directly, or where the entire uterus cannot be made the direct medium of compression, as in the manner I have described, I would introduce the hand in utero, not alone to act as an uterine irritator, but in order to compress the aorta from within the uterus, and with only the intervention of the posterior uterine wall. For this purpose I would employ the right hand, as being in every way more adapted for use.

CHLORAMYL AS AN ANÆSTHETIC.

The following is from the *British Med. Journal* for April 26, '79.

Chloramyl, a combination of pure chloroform and nitrite of amyl has recently been tried as an anæsthetic, at the London Hospital, by Mr. Rivington, Surgeon to the Hospital. The first patient to whom it was administered was a healthy man, and the operation merely the slitting up of a sinus. The patient inhaled the drug freely and comfort-

ably, with no symptom of choking; the pulse increased almost immediately in volume and rapidity; the respirations were more frequent and less deep. In three minutes, the patient began to struggle, and, within four minutes of the commencement of the administration, the pulse suddenly failed, so as for a moment to be hardly perceptible; the respirations became hurried and shallow; the jaw appeared to be closed by spasm; the lips were blue; the eyes staring and suffused, the left pupil much dilated, but the right of moderate size (about the dimension of a No. 8 catheter); the breathing was very noisy and stridulous, as if due to laryngeal spasm. With difficulty the mouth was forced open. These symptoms passed off rapidly, and in about the space of two minutes the patient came to himself, without passing through the talkative stage usually observed when chloroform is given. The slight operation needed was performed while he was quite conscious. He himself thought that the anæsthetic had caused him to feel the pain less acutely. The next patient anæsthetised was a young woman aged 25, suffering from extensive warty growths of the vulva. Mr. Rivington cut away the growth, arresting hemorrhage by pressure and the occasional application of the actual cautery. She was in good health. She inhaled the chloroform comfortably, and in five minutes was fairly under its influence. The pulse remained throughout full and regular, the respiration easy. As in the previous case, she regained consciousness without passing through the stage of disquiet usually observed. The third operation was for the removal of necrosed bone from the hand; the patient was a healthy man. In six minutes he was perfectly anæsthetised. His pulse during the first minute became intermittent, the intervals of intermission decreasing in frequency until the third minute, when the pulse was perfectly regular. The respirations were throughout easy. The patient struggled a great deal, but came to himself without any display of restlessness or talkativeness. In each instance, the patient was free from any cardiac mischief. The drug was administered in the same manner as is adopted at the hospital for the administration of chloroform, but the quantity used was greater. It was observed that, when once the patient was well under the influence of the chloroform, small quantities of the drug were sufficient to keep up the narcotic effect. All the patients recovered completely, without vomiting or other bad result. In the two latter patients, the pupils remained throughout quite equal, the eyes turned up, with lateral ystagnus, the globes retaining perfect parallelism. The drug was obtained from Bass Brothers and Co. Chloroform was first advocated by Dr. R. Sandford, in a letter to an American journal. From experiments upon animals, he has come to the conclusion that this combination, is far safer for general anæsthetic purposes than

chloroform uncombined, and, "so far as tried, it seems to be fully as safe as sulphuric ether, and far more pleasant in its administration, possessing all the advantages of pure chloroform without its dangers." He states that, "in administering chloroform, the patient's face becomes flushed much sooner than with chloroform, but press the drug right along, and the countenance does not become pale. Both heart's action and respiration are kept up thoroughly throughout the anæsthesia." Dr. Sandford alleges that chloroform prevents the approach of danger both by syncope and by asphyxia. The formula he uses is: Squibb's chloroform, lb. j; nitrite of amyl, two drachms. He suggests that the amount should be diminished in long and tedious operations. Mr. J. T. Clover, in reviewing Dr. Sandford's communication in the January number of the *London Medical Record*, stated that he made a trial of this mixture in ten cases. The anæsthesia was quickly produced, without much excitement in any case; but three suffered nausea afterwards, and two of them vomited and remained for an hour much in the same condition as if chloroform alone had been given. It appears to be similar in its action to that of a mixture of chloroform and ether; but as the vapour is less pungent, the patients generally breathe it without resistance. It was much too soon (Mr. Clover thought) to pronounce upon its relative safety.

"PRAYING DOCTORS."

The *London Lancet*, of May 3rd, 1879, has the following in reference to "praying doctors:—"

The *World* of April 23rd has an article on praying doctors, which imputes to certain—or a certain class of—medical practitioners, that they seize the opportunity offered by the bodily and mental weakness of their patients, to ply them with appeals and exhortations on the subject of religion, and so practically establish themselves as medical *confessors*. If there were any real ground for this imputation we should be the first to denounce a procedure so obviously at variance with the obligations of medical etiquette and domestic decency. No confounding of the functions of the physician with those of the spiritual director would be sanctioned by the approval of the profession. If a practitioner were known to abuse his proper relations with the sick by proselytising, or making personal capital out of a pretence of religious zeal, he would be justly ostracised by the common sense of the scientific community. We do not, however, believe the assertion, that such a course is pursued by any creditable member of the profession. There are, of course, black sheep in every flock, our own not excepted; but we hope, and have confidence, that the number of those blackest of black-hearted men who would utilize a reputation for praying,

and an aptitude for preaching, in the interest of a "connexion," is very small, and of the total crew the medical profession has few representatives in its ranks.

[Unless Dame Rumor is very much at fault, we have one of these "praying doctors" in this city. Not long since one of his patients, a female, of a very religious turn of mind, fell dangerously ill, and was not expected to recover. He prescribed what appeared necessary in her case, and on his return next day finding her very much better, he knelt down at her bed-side and thanked God that he had been made the humble instrument of her recovery!—ED. LANCET.]

ADMINISTRATION OF MERCURY TO CHILDREN.

The following is from the "Confessional" in the *Brit. Med. Journal*.

The following case, for which I beg insertion in the "Confessional," illustrates the dangers attending the administration of mercury to children. I quote the case from memory.

Annie S., a child aged about 4, was apparently suffering from gastro hepatic derangement. I ordered two powders, containing each three grains of grey powder, with I think, a small quantity of Dovers powder, the powders to be taken on successive nights and followed in the morning by a small dose of castor-oil. On visiting the case the day after the second powder had been taken, I found that profuse salivation had been induced. I used every effort to check the salivation by frequent use of mouth-washes, internal administration of chlorate of potash with cinchona bark, and feeding the child with milk *ad libitum*. Notwithstanding these measures, the salivation went on increasing, spread through the Eustachian tube to the internal ear, and finally the child died with symptoms of acute meningitis, on the eighth day after the administration of the second powder. I ascertained, on my second visit, what had not, I think, been properly brought to my notice at first, viz., that the child had quite recently recovered from what, by the mother's account, must have been an attack of scarlet fever. I may likewise mention that there was a very small ulcer on the child's tongue, a fact which may perhaps account to some extent for the rapid production of such acute salivation. This case has been a lesson to me not to give mercury to children, without careful inquiry into the previous history of the case.—H.

illustrated by the following cases, given by Mr. Jonathan Hutchinson, F.R.C.S., in a recent lecture:

One of the most remarkable examples of this eruption came under my notice about twelve years ago. A young gentleman called on me with a conspicuous papular eruption on his face and other parts. "I have just had small-pox," he said; "and Mr. — says that I am cured, but the spots don't go away." He added that Mr. —, a gentleman of large experience, had kept him in bed a fortnight, and had since sent him into the country for a fortnight, and now said that he might return to his desk at a bank, "but," he continued, "the other clerks won't sit near me, and declare that I have small-pox still." He had a chancre, and the eruption was syphilitic. I have seen several cases which had been treated in the small-pox hospital for eruptions which were undoubtedly syphilitic. But I must not mention the mistakes of others, unless I am prepared to be candid about my own. I had many a time, in clinical lecture, mentioned the preceding facts, and enlarged upon the importance of distinguishing between the syphilitic simular of small-pox and the reality, when my own turn came. One day in the summer of 1877 I was hastily summoned to see a gentleman at his own house, who had just been landed from a sea-voyage, during the whole of which he had been very ill. He had been carried from the vessel to his house, and put to bed; and I found him covered from head to foot with crusts exactly like those of variola in the third stage. Some had fallen, and where this had happened, deep scars were left. The eruption had begun to come out on the day that he went on board, and he had been feeling ill a few days before. The stages had been unusually long, but still had not exceeded possible limits. I questioned him as to syphilis, and examined his penis and his throat, but without finding any reason to doubt his denial. In a word, after a careful and skeptical investigation, I thought that the eruption was variola. The sequel proved that it was syphilis; the scabs took months to fall; and just when he was recovering from the eruption he had iritis, which I could not doubt was specific. At this stage, three or four months after I had seen him at home, in bed, he came to Moorfields Hospital. His face was pitted all over, and I had much difficulty in convincing those who then saw him that he had not really had small-pox. I could not quote an instance more conclusive in support of the assertion that one of the forms of syphilitic eruption is exactly like small-pox in all its stages, and in its resulting scars. Slow progress is the one difference between the two exanthems. The similarity is produced, no doubt, by the fact that syphilis, in these cases, attacks precisely the same anatomical structures as those in which the variolous pustule is developed. It is scarcely needful to remark that this form of eruption always occurs in the secondary stage.

SMALLPOX AND GREAT POX.—The *Michigan Med. News* has the following on this subject:—The occasional similarity of syphilis to variola, which has led to their bearing a common name, is well il-

CLINICAL LECTURE ON BLOODLESS TRACHEOTOMY, EPITHELIOMA OF THE LIP, AND SPINA BIFIDA.

BY W. W. DAWSON, M.D., CINCINNATI HOSPITAL.

REMOVAL OF FOREIGN BODY FROM TRACHEA.

On Thursday last (May 15th,) this little fellow, Thomas Reardon, who is five years old, was playing with some grains of corn, putting some in his mouth. About 7 a.m. the mother's attention was called to him by his having a violent fit of coughing, in which he nearly strangled, becoming quite black in the face. After recovering somewhat, he replied to questioning that he had some corn in his mouth, and suddenly one of the kernels "went the wrong way." From this time up to the present he has had considerable cough, coming on chiefly in paroxysms, between which he is very comfortable. He was taken to several medical gentlemen here, who pronounced operative interference unwarrantable. I saw him this morning for the first time, four days and three hours after the accident. On putting my ear to his chest I discover signs of slight general bronchitis, and spasmodic, irregular inspiration and expiration in the larger bronchial tubes. There is no rattling as if some foreign body were present. The vesicular murmur can be heard distinctly over both lungs. Supposing a foreign body to have entered the larynx, it may remain there, pass into the trachea, into one of the primary, or more rarely into one of the secondary bronchial tubes. Round, smooth, small bodies are more liable to pass on to the bronchi, than rough or uneven ones, the latter very frequently sticking in the larynx or remaining in the trachea. Now, gentlemen, supposing a foreign body to have passed through the larynx and trachea, in which bronchus is it most apt to lodge; the right or the left? Those of you who remember your anatomy will correctly answer,—the right bronchus. Why? From the fact, first pointed out by Mr. Goodall of Dublin, that the septum at the lower end of the trachea, where it divides into the bronchi, is situated to the left of the median line. Any body descending by its own weight would thus naturally pass into the right bronchus, which is also larger than the left. There are some exceptions to the rule, regarding the arrangement of this membrane or septum.

Dr. Gross analyzed twenty-four cases where death occurred without operation. The foreign body was in the larynx in four cases; partly in the trachea and partly in the larynx in one; in the trachea in three; in the right bronchial tube in eleven; in the lung in one; and in the pleural cavity in one.

"In forty-two cases subjected to operation or general treatment, the extraneous substance was

situated twice positively, and eleven times probably, in the right bronchial tube, four times certainly, and four times probably, in the left bronchial tube; seven times in the larynx, and fourteen times in the trachea."

What are the symptoms of a foreign body in the air passages? If lodged in the larynx there will be paroxysms of coughing, preceded and followed by great pain at that point, alteration or loss of voice, and sometimes a crowing sound on inspiration. When in the trachea or bronchi, there are usually paroxysms of cough, pain in the throat or chest, sometimes a rattling sound during either inspiration, or expiration, or both. If the foreign body is of a vegetable nature, it is apt to absorb moisture, swell, and plug the tube. In such case there may be collapse of the lung, the substance rising at each expiration and letting out the air, but closing like a valve at inspiration and allowing no air to pass. This may be produced by bodies, not vegetable, that happen to fit the tube accurately. In such cases the vesicular murmur will be entirely absent over the lung to which the bronchus leads.

What is it best to do in these cases? I make it a rule to operate as soon as I am satisfied that the body is there. Patients often recover without any operative interference, and for this reason many surgeons prefer to wait upon Nature. Death, however, may occur almost instantly from the forcing of the foreign body into the larynx, and from other causes. Durham of London has tabulated 554 cases of foreign bodies in the air passages. Of these 271 were not operated on; 156 recovered, 115 died. Mortality 42.5 per cent.

In 283 of these, bronchotomy was performed, 70 died; 213 recovered. Mortality 24.8 per cent. Difference in favor of cases operated on 17 per cent. Dr. I. R. Weist of Richmond Indiana, has tabulated and analyzed 163 cases, 82 of which were operated upon and 81 left to Nature.

He says, "as determined by Prof. Gross's tables the chances for recovery are more than twice as great after bronchotomy, as they are without this operation; while the cases here presented show only a difference of $1\frac{1}{2}$ per cent. in favor of the operation. And I feel sure from observations made during the collection of material for this paper, that were it possible to collect from medical men generally *all* the facts known to them in relation to this subject, the difference in favor of the operation would be reduced still more." Where the foreign body is in the larynx primarily it may often be reached and moved with a pair of long throat forceps. The laryngoscope is of great service in some cases; in others the patients, who are usually young and do not see the importance of quiet, struggle so as to render it useless. Sudden death being liable to occur at any moment, (though patients have lived for twelve months without any difficulty of breathing or urgent symptoms), I deem

it best to operate at once. I may say in this connection that I have performed tracheotomy a great many times, have never lost a patient where I operated for foreign bodies, and have never saved one where I operated for the difficulties attending croup or diphtheria.

Following the guidance of your text-books, gentlemen, you will regard this as one of the simplest and most satisfactory operations in surgery. You are told to make an incision through the skin, and then all that lies between you and the trachea is the cellular tissue and a few unimportant veins, through which you may cut with impunity; open the trachea and insert the tube or commence your search for the foreign body. This is a great mistake. There is no operation which the surgeon so much dreads. At least this has been my experience. You imagine the case is simple, the neck long, the patient lean, and expect to find easy access to a superficial trachea. After dividing the integument you cut into the cellular tissue, and to your surprise and horror you find the trachea low down and covered by a mass of veins, rendered thick, turgid, almost varicose, by the impeded respiration. You cut, tie and tear your way along, and when you hope to open into the trachea, find yourself at the bottom of a deep, blood well, with a constantly-moving tube to open. It is for this reason that I have given up all cutting from the time of dividing the integument until the trachea is reached. Then, too, I operate high up. If the isthmus of the thyroid is in my way, I push it aside if possible, and if I cannot do this, I double ligate and divide it. My incision is made into the first two rings of the trachea, thus avoiding all danger to the great vessels at the root of the neck.

I shall now proceed to operate on this little fellow. I give him only enough ether to blunt sensation. I find it best to do so in most of these cases. My first step, you see, is to pinch up a transverse fold of the skin, and, passing my bistoury through it in the median line, cut directly out, thus making my skin incision, which, as you see, is pretty free. I now lay aside my knife, not using one again, until I come to the trachea. With a fairly sharp steel director I now proceed to tear up the tissues in the median line. I have just exposed the anterior jugular vein of the right side. It is large and tortuous. Under this Dr. Kearns passes a double ligature, and ties it in two places. The trachea is situated very deep in the neck for a child so thin and long-necked as this one. Separating the muscles on the front of the trachea, I now see that tube, and, bending in across it a vein almost as large as the trachea itself. Having sponged away what little blood there is, I draw the large vein to one side and with this *curved, double edged, sharp-pointed bistoury*, I catch up the trachea and open it, cutting from below upwards. The knife I use is similar to Cross's abscess knife. The

grain of corn is right before us in the wound, but eludes all our efforts to grasp and remove it. As the child just coughed the kernel was forcibly expelled. Here I show it to you. It is unusually large, rather sharp-pointed, and not at all softened, though in its warm, moist bed for over four days. If I had some catgut ligature I would sew up the edges of the tracheal wound. Having none, I content myself with putting three sutures through the skin, covering this with a pad of cotton and applying a roller bandage.

I wish to call your attention to two points before closing. For the past eight years I have used the knife only to cut through the skin and open the trachea. I separate and tear the other tissues with a blunt instrument, thus avoiding all hemorrhage, the operation being really a bloodless one. In making your incision always be sure that you do not extend your cut too low, as the arteria innominata is relatively high up in children. One case is recorded where the arteria innominata crossed the trachea at the point where it should be opened, and it was decided to abandon the operation on this account. *Be sure to keep in the median line.* You noticed that when I opened the trachea I did it with a curved and double-edged bistoury. I never use the common bistoury for this purpose now. It is very hard to enter a trachea with it, a tenaculum, is necessary to hold the tube, and the force required to pierce the organ, if not very carefully guarded, is apt to cause transfixion of the trachea. The sharp-pointed, double-edged bistoury acts as a tenaculum holding the tube and readily cutting through its rings. Finally, let your incision into the trachea be free, for unless it be so, the chances of the patient's forcing out the foreign body when he coughs are not so good. Here I was obliged to make my incision a little larger than usual, on account of the large vein that curved around it, and the grain of corn did not fly out so readily as it would otherwise have done. Time prevents my saying any more to you on this very interesting subject to-day.

EPITHELIUM OF THE LIP.

The patient whom I now show you is about fifty years of age, strong and robust. I bring him before you, not because there is anything unusual in his case, but simply that he may serve as a text for a few remarks that I wish to make, on cancer of the lip. I operated upon him some ten days ago, removing the whole disease by making a V-shaped incision having the free margin of the lip as its base. Although I made a free incision and removed a large piece ($1\frac{1}{4}$ inches in breadth at its base), cutting clear of all morbid tissue into sound flesh, you see that union is perfect and the mouth but little smaller. When you come to do this operation for the first time you will probably hesitate and possibly neglect to remove as large a piece of

tissue as you will afterward wish you had. You need never hesitate, on this ground, in the ordinary case of epithelioma of the lip, for after the parts have been brought together and union has taken place you will be surprised at the little deformity resulting. You should cut free of all diseased tissue into sound flesh in order that the disease may not return. Such a method of operating has always been the rule with me, and to it I ascribe the fact that I have never had the disease return after operation. I carry out this practice in carcinoma of the female breast, a disease which you know is by no means uncommon, and one that is so likely to return after operating in the ordinary way. Instead of simply removing that part of the gland which I consider to be diseased, I remove the whole breast and let the wound heal by granulation. That part of the breast left after the usual operation is of no use, and indeed, the cicatrix resulting from the union obtained, is the point where the disease is most apt to show itself again. The cancerous mass is oftentimes well defined, in some cases encapsuled, but more often the deadly material is spread amongst the healthy tissues in such a manner that it is impossible for the surgeon to determine whether the part he leaves is normal or abnormal. Glandular structure that may be normal to the touch and sight, may, under the microscope, prove to be infiltrated with carcinomatous material. With this method of procedure, amputation of the whole breast, leaving no flap and, consequently, no cicatrix, I feel confident that I obtain better results than do those who only remove that part of the gland that, to the sight and touch, seems to be diseased. But to return to the lip. There is one form of disease that we may very readily confound with epithelioma. This is lupus; the *noli me tangere* of the old authors. How can we distinguish the one disease from the other? I know of but one diagnostic feature upon which any confidence can be placed. In lupus we have an ulcer that looks and acts almost exactly as does epithelioma, but it lacks one thing; the *hard, indurated, shotty feel* of the edges of the cancerous ulcer. The edges of lupus ulcer are soft, flabby and sometimes œdematous; those of epithelioma are hard and tough. Don't forget this.

I want to say a few words here regarding the etiology of cancer. There are many who believe, and justly too, I think, that all cancer is referable to some injury, chemical or mechanical, usually the latter; a blow, a traumatism. Whether this be true or not, the fact remains that almost every case of carcinoma that we see is referred to some injury. True it is, that, from the nature of our surroundings, we are constantly receiving injuries more or less serious, and it is very natural, when disease appears at a certain point to ascribe it to some injury of the part. There is, however, an undoubted connection between the two. Epithelioma

of the lip is most often seen in those who are so constantly holding the stem of a foul clay pipe between the lips. You will remember that in my lecture upon the nature and etiology of cancer, in the regular term, I spoke to you, somewhat fully, upon the difference of opinion or belief amongst some of our leading pathologists as to the nature of this disease. Paget and his followers maintain that cancer is a constitutional affection, and that the lesion, wherever situated, is simply a local manifestation of the general disease. In the minds of these gentlemen a traumatism is only the exciting cause that, in some cases, determines the point at which the lesion is to appear. Billroth, on the other hand, with an equally large following, maintains that the disease is purely a local one, and that the rest of the system is implicated only by an absorption of the peculiar cell or virus produced at the point of lesion. The question is still *sub judice*, and will so remain until some further light is thrown upon the pathology of this formidable affection. Remember one thing, in operating for epithelioma of the lip, *sacrifice a sufficient quantity of healthy structure to make sure that you have removed all of the diseased tissue.*

SPINA BIFIDA.

This is a congenital hernia of the membranes of the spine through a hole or fissure in the posterior wall of that canal. It is a very common malformation, being seen more often than any other except hare-lip. The child whom I present to you to-day with this patent condition of the vertebral canal is a little boy, four months old. The tumor, you see, is in the lumbar region, and of fair size, containing probably four ounces of fluid. The skin over it is thinned and has a purplish, cicatricial appearance. The sac being in all cases, simply a dilatation and protrusion of the cord membranes, its contents are of course the contents of the cord membranes and of the cerebral arachnoid, the two being continuous. Herein lies one of the great dangers in operating for the relief or cure of this condition: for in emptying the spinal diverticulum you are very apt to withdraw the cerebral arachnoid fluid, and lead to convulsions, inflammation and death. In some cases, where the skin covering the tumor is greatly thinned or entirely absent, ulceration may take place and the arachnoid fluid thus slowly drain away and lead to a fatal issue. Rupture or ulceration has been, however, occasionally followed by cure. In some cases the skin instead of being thinned or absent, has its normal thickness and appearance, and in still others is tough and leathery, being considerably thickened. The tumor may be pedunculated, the pedicle being long or short, or it may have a broad, sessile base. The difference is due entirely to the form and extent of the spinal fissure. In this case the base of the tumor is rather broad and the fissured

condition of the vertebræ may be felt through the membranes.

These cases are almost uniformly fatal, and as a rule rapidly so. It will be apparent to you that such delicate structures when exposed to constant chafing and injury will sooner or later inflame, and paralysis and death result. Some few cases have been known to recover after operation. Mention is made in Holmes' System of Surgery of two cases of this disease, where the patients lived to be forty-three and fifty years of age respectively.

Spina bifida is due to an arrest of development in the vertebral arches. This may arise from no known cause or may be traced directly to a dropsy of the membranes, usually inflammatory, producing a tumor that by its protrusion prevents the coming together of the parts and thus arrests the development of the same. The point of fissure is usually through the laminae. There are some very rare cases where the bodies of the vertebræ are fissured or entirely absent. They are, however, so rare that I leave them for your special study. The sac in almost all instances contains a portion of the spinal cord. Its usual position is in the median line, on the internal and posterior aspect of the tumor. In aspirating these tumors, as I now propose to do here, you should make your puncture at the side in order to escape wounding the cord or its prolongations when present. Having carefully inserted the needle I now slowly withdraw the fluid contents of the tumor. This is very commonly accompanied or followed by convulsions. I think that in this case the cord is not present in the tumor. Dr. Moutmullur of Kentucky, whose patient this is, tells me that he has tapped the tumor twice before and that there were no convulsions. He says that he has tried various pads, and metal plates, tightly strapped over the tumor after emptying it, but that the fluid has accumulated each time in spite of his efforts to the contrary. Having emptied the tumor, I now proceed to apply a Sayre's plaster jacket, hoping thus to maintain an equable pressure, and possibly prevent a re-accumulation of the fluid, Sir Astley Cooper obtained some very good results by tapping and then carefully applying graduated pressure over the site of the tumor.

There have been many plans of treatment other than this. That by the injection of iodine, and the iodide of potassium and iodine in water have received the highest laudation. Brainard of Chicago and Velpeau of France claim to cure 50 per cent of their patients in this way. Brainard is said by M. Debout to have operated upon six cases by injection, with the perfect cure of five. Brainard himself (*Amer. Jour. Med. Sci.* vol. XLII, p. 65, 1861) however, claims to have cured but three out of seven cases. His method is as follows. He withdraws from the tumor six ounces of its fluid contents and then injects half an ounce of a solution containing five (5) grains of iodine and fifteen (15)

grains of iodide of potassium to the ounce of water. Allowing this to remain for a few moments he draws it off, washes out the sac with water and injects two ounces (2 oz), of the cerebro-spinal fluid, kept at the temperature of the body. Great as has been the success of this method of procedure in Velpeau's and Brainard's patients, it has not proved of nearly the same value in the hands of others.

Excision and ligation of these tumors is a very dangerous procedure, death almost invariably following.

(This little patient died of exhaustion 12 days after the aspiration. The application of the plaster jacket had no effect in checking the accumulation of the fluid.)—*Hospital Gazette*.

ON ACONITE AS A THERAPEUTICAL AGENT.

The following remarks are taken from an article in the *Practitioner* by Dr. J. S. Spark:—

The first disease to which I shall direct your attention, in which I have seen illustrated the abortive power of aconite, is pneumonia, and if it were the only affection which aconite could not only control, but also cut short, its gravity is such that we should be warranted in giving the drug a prominent place in our pharmacopœia. If administered within a day or two after the symptoms are apparent enough to render the diagnosis certain—but, of course, the earlier the better—it will arrest the inflammation and effect a cure in from one to three or four days, the beneficial effects being manifest from the very commencement of its administration. The pain frequently begins to subside from the first, the skin becomes moist, the breathing more natural, and the patient appreciably better and more comfortable after each dose. I have used it frequently, both in children and adults, and have never seen it fail to produce most satisfactory results. The dose I have generally employed for an adult is five minims (Fleming's tincture) at first, and one or two minims every hour after, modifying the dose according to circumstances. If the patient be debilitated from any cause, it must be prescribed cautiously, as I have seen it cause considerable alarm by producing delirium; nor are the beneficial effects of the drug any more, if so much, seen when it acts too powerfully.

I have not had sufficient experience to speak positively of its action in bronchitis, but so far as I have seen, it does not appear to exercise the same control over it as over pneumonia. I have, however, found it useful when there is much feverishness, with fullness of the head and flushing of the face.

In cynanche tonsillaris I have found it exceedingly useful, both as an abortive and as a controll-

ing or modifying agent. If properly administered during the inflammatory stage it will seldom fail to cut the attack short, and if given at the very beginning, to abort it. If duly administered, it not only cuts short the present attack, but after a time it seems to reduce or remove the liability to quinsy in persons subject to periodical attacks of it. It would take a considerable deal of evidence to establish this last fact, but I have seen it sufficiently often to warrant my referring to it.

Its use in fevers, especially in those of an inflammatory character, has been found very advantageous. It reduces the temperature and produces a very soothing effect from its action on the skin. Whether it will act as an abortive in such cases, or not, if given sufficiently early, I have not yet ascertained, but have every reason to believe it would.

There is no doubt of its efficacy in erysipelas, especially in that form which is occasionally consequent upon vaccination, which I have seen it cut short in a few hours.

We have no better illustration of the efficacy and rapidity of the action of aconite than in common cold, "cold all through one," or "cold in the bones," as it is variously popularly described, when one feels as "if he had been put through a thrashing mill." Ringer (I think) states that one or two drops taken at bedtime will enable a person in such a state to rise quite well in the morning; and certainly in the doses I have mentioned it affords very speedy relief.

It relieves that disagreeable affection, ringing in the ears, in many cases after a dose or two, and is said also to remove earache.

In the acute stage of gonorrhœa, when there is much pain and uneasiness, it affords marked relief.

—*Medical and Surgical Reporter.*

PROPYLAMINE IN ACUTE ARTICULAR RHEUMATISM.

Dr. James L. Tyson, in the *Philadelphia Med. Times* for May 10, 1879, after referring to the testimony of European and American physicians concerning the value of propylamine, or trimethylamine, in rheumatism, adds:—

That its efficiency in the treatment of acute articular rheumatism has not been overestimated will scarcely admit of a doubt, in view of results where I have recently employed it. More extended observation and repeated trial, I am inclined to believe, will fully justify the merits ascribed to and the encomiums awarded it in this complaint.

An important prerequisite is, that the alkaloid and its chloride be *pure*, which is not always the case. The best which I have seen were from the laboratory of the Messrs. Nichols & Co. [now Billings, Clapp & Co.], of Boston, and that of the Messrs. Rosengarten, of Philadelphia, both being perfectly reliable preparations.

He gives the following account of two instances out of many in his own practice, illustrating the advantages of propylamine:—

The patients were females, between twenty and thirty years of age, and each was attacked, at different periods of time, with pain and swelling of the wrists, and in one the phalangeal and metacarpal articulations were swollen and sensitive. From thence the pain radiated to the elbows, the shoulders, the sterno-clavicular articulations, the chest walls, involving the intercostals (pleurodynia), causing considerable dyspnœa, wandering to the hips, sacrum, femoral fasciæ, knees, ankles, and feet, including the aponeurotic expansion on the sole and dorsum of each foot. The fever was intense, the pulse ranging from eighty-five to ninety, accompanied by redness and swelling in all parts implicated, with a hot, moist, perspirable skin. This was very nearly the condition of each. Finding that neither could tolerate any preparation of salicin or of colchicum, I resorted to propylamine, using the chloride, the rather disagreeable taste of the alkaloid rendering it objectionable to some; the latter being equally potential in this complaint, its slightly saline character leaving a not unpleasant impression on the mouth. It was combined as follows:—

℞ Propylaminæ chloridi . . . grs. xxiv.
Aq. menthæ piperitæ,
Aquæ, ää fʒij. M.

Sig. A tablespoonful every two or three hours.

The dose of propylamine is six drops, similarly prepared and administered. Giving the chloride as above, two grains every two hours, and swathing all the joints in cotton batting, benefit was apparent in the first twenty-four hours. For the pleurodynia a weak sinapism was applied to the chest for fifteen or twenty minutes, followed by a warm mush cataplasm. These were alternated occasionally through the day. In the one case ten days elapsed, when I could pronounce my patient well; in the other, five days passed, when she was entirely convalescent. A tonic of quinia is advisable when rheumatic symptoms have subsided. No disturbance or appreciable influence was manifested in the therapeutic action of the propylamine, other than a gradual abatement of fever, pain, swelling, and all the distressing nervous concomitants of acute articular rheumatism.—*Boston Four. of Chem.*

NITRITE OF AMYL IN SEA-SICKNESS.

MR. CROCHLEY CLAPHAM, to whom is distinctly due the credit of introducing this remedy to the notice of the profession, again writes reminding us of the fact, and remarking that "with due attention to details he looks upon the drug as curative in at

least 90 per cent. of all cases treated." By a reference to his first article on the subject, published in *The Lancet* of Aug. 21st, 1875, it appears that, during several trips across the Pacific, Mr. Clapham treated altogether 124 cases. In 121 of these he tells, success was evident and complete. The drug was administered by inhalation, three drops of the nitrite being poured on a handkerchief held close to the nose of the patient, the inhalation being conducted rapidly. A caution is added, to the effect that not more than three drops should be used in the absence of medical advice. In July, 1878, we published an article on the same subject by Dr. J. Rudd Leeson, who was successful in about three-fourths of the cases treated, the remaining fourth complaining of a feeling of sickness, but without vomiting. One or two cases did not improve in any way. Dr. Leeson thinks that three drops for women and five for men is the minimum dose, but that caution is required. Mr. Clapham says it is not a dangerous drug, except of course in cases where the arterial system is more or less rigid from osseous deposits. In August last Mr. Clapham and Dr. R. Leeson each contributed a letter to our columns, in which the former quotes some favorable experiences of Dr. Crichton Browne in crossing to Sweden, and Dr. Leeson gives a very emphatic proof of the comparative harmlessness of that drug, for the particulars of which we must refer our readers to *THE LANCET* of August 10th, 1878. On the 3rd inst. Mr. Dingle, surgeon to the Peninsular and Oriental Company's ship *Mirzapore*, gives a favorable account of the remedy, saying that in one day he administered it in at least a dozen cases, and in all the effect was markedly successful, though in some instances it was necessary to repeat the dose, which he limited to three drops. But one of Dr. Dingle's patients has written to us, and says that, according to his observations on the occasion referred to, the drug ought to be administered with very great caution, and always under medical supervision. Later, as our readers will have observed, one or more favorable reports have appeared in these columns. Under such circumstances, and with such an accumulation of evidence, we consider it right, as Mr. Clapham suggests, to draw the attention of those who often "go down to the sea in ships" to the remedy. And we should recommend ship surgeons to take Mr. Clapham's standard—as a rule, to limit the dose to three drops, and not to take it unless under medical advice. He also recommends that the patient, when under treatment, should be in bed, because a good sleep is generally the first result, from which the person awakes wanting to eat. It is usually better to allow one fit of vomiting to occur before the treatment is commenced, "to ensure the *bona fide* character of the seizure." Some, however, do not vomit at all, but are very ill, and with these he considers the nitrite to be equally successful.—*Lancet*.

THE THERAPEUTIC VALUE OF CROTON-CHLORAL.

—In a very interesting paper read before the Ulster Medical Society, Dr. Riddell (*Dublin Medical Journal*, April 1879) reports his experience of the great therapeutical value of croton (butyl) chloral. He mentions first a case of severe paroxysmal headache ineffectually treated for many years by all the great guns of the *Pharmacopœia*, but cured by five grains of butyl-chloral twice daily and ten grains taken at night dissolved in spirits of wine and glycerine, with a little acid and syrup of orange to cover the flavour. The patient continues the five-grain doses at night, and now enjoys better health than she has done for years. Since that case, Dr. Riddell says he has used it largely—sometimes failing, sometimes relieving—till, by keeping an account of all his cases, it began to be clear which were most benefited by the drug. Since then, the number of cases relieved (some permanently) has increased. These cases are: headaches in females arising from mental distress; those cases of headache frequent at the menopause—in fact, all those called neuralgic, except a few arising from internal mischief, are benefited, and in many instances cured. In that distressing species of neuralgia called *tic douloureux*, he has found it in many cases acting like a charm. Of course, he does not include any arising from cranial or intercranial causes. He has tried it in neuralgia of the ovaries, but no good resulted. In insomnia, it is not so reliable as the hydrate; but in some cases, where the loss of, or inability to, sleep is accompanied by a weak or fatty heart, it is to be preferred, as it has no weakening effect on the central organ of the circulation. In one case of delirium tremens, where the circulation was very feeble, the combination of croton-chloral with digitalis had a wonderful effect, and it seemed as if the drugs could be given together in much smaller doses to produce the same results than singly. In this, he pushed it from ten to thirty grains every three hours, with drachm and two-drachm doses of the infusion of digitalis. In pain arising from caries of teeth, he has found it useless in most cases, and in all inferior to Richardson's "tinctura gelsemini"; but in one case, of a nervous young lady, by giving her two ten-grain doses, he was able to extract a tooth next to painlessly, to her great satisfaction. In these cases, it is in affections of those parts supplied by the fifth pair of nerves that it is of most use; but, to be of service, the drug must be given in far larger doses than prescribed in the *Pharmacopœia* for adults, five grains three or four times daily, gradually increasing if required; if stimulants be wanted, dissolve it in rectified spirit; if not, dissolve it in glycerine. In all cases complicated with hæmorrhoids give glycerine. If anæmia exist, combine it with iron, or what he believes better, arsenic; then gradually lessen the chloral. In all cases, he has found it better to give it in solution than in powder

or pill. Dr. Riddell mentions also severe pain with photophobia and blepharospasm after injury, in which atropia failed, but ten grains of butyl-chloral repeated in an hour gave complete relief; and a case of acute painful facial carbuncle, in which the effect of ten-grain doses every three hours was "simply marvellous," the disease going through the subsequent stages almost without the patient knowing anything of the matter from the sense of feeling. This remedy is probably less used in practice than its remarkable anodyne powers deserve.—*Brit. Med. Journal.*

CASE OF COMA FROM ALCOHOL AND EXTRAVASATION OF BLOOD, THE RESULT OF VIOLENCE.—The following case under the care of Dr. Dunlop is reported in the *Glasgow Medical Journal*, February, '79.—J. M., aged 50 years, was admitted into Dr. Dunlop's female ward on the morning of the 5th November, 1878. She was quite unconscious when admitted, and could not be roused. She had a strong odour of alcohol. From the policeman, who brought her to the hospital, it was learned that, at an early hour of the previous evening she had been seen about the streets under the influence of drink, and at a later hour she was found lying at the foot of a stair in a close. She was conveyed to the district police office, and as she was known to be in the practice of becoming frequently intoxicated, and further, as there was a strong odour of alcohol emitted with her breath, she was placed in a cell, and carefully looked after. As she did not recover consciousness after an interval of several hours she was removed to the hospital. On admission she was observed to have two slight bruises on the left temporal region, and also an abrasion upon the nose. At the hour of admission she was still unconscious, with small and equally contracted pupils. Her breath was distinctly alcoholic in odour, and her pulse was small and slow. At the visit hour she was still unconscious. Her pupils, though contracted, were observed to dilate as she was being roused, and when the rousing process ceased they rapidly resumed their contracted condition. She was again seen in the afternoon, and as sufficient time had elapsed for the effects of alcohol to have passed off, and she was still unconscious, it was considered that there was, probably, some head injury along with the intoxication. On the following day, the 7th, after having had cold applied to her head, and being well purged, she became partially conscious, and continued in that condition for several days. While in this semi-conscious state she stated that she had been criminally assaulted, and thrown down at the foot of the stair, but she could not state by whom. On the 15th she gradually became unconscious, and remained in that condition till the morning of the 18th, when she died, 13 days after admission

During these two days her left side became paralyzed, and her pupils became irregular—sometimes contracted, sometimes dilated, always irregular, and not sensitive to light.

On *post-mortem* examination there was found a large clot of blood spreading over the right hemisphere, under the dura mater. There was no fracture of the skull, or any evidence of injury on the right side; but in the left temporal fossa, and extending forwards to the left frontal eminence, there was a considerable quantity of extravasated blood. In addition to the blood there was compression of the right hemisphere, and there had been inflammatory effusion taking place upon the dura mater.

It was remarked of this case that it was, from the first, one of coma from extravasation of blood, probably with the addition of some symptoms of alcoholic poisoning. These latter symptoms must have soon passed off, leaving the coma of compression. The relapse into complete unconsciousness, after being so conscious for several days as to be able to tell her name and answer questions as to her state, is to be explained by the fact that, in consequence of the presence of the large clot, and of the compression of the brain, inflammatory changes had been set up, and effusion had taken place, giving rise to further compression which proved fatal.

There was no evidence of disease of the blood-vessels, or of the heart. The bleeding had taken place on the right side of the brain, immediately opposite the point where the injuries had been inflicted on the left side, and the clot was not between the cranium and dura mater, but was spread over the greater portion of the right hemisphere, and could not have been reached by trephining.

OSSEOUS UNION IN FRACTURE OF PATELLA.—Mr. Wheeler, of Dublin, in the *Medical Press and Circular*, reports an interesting case of fractured patella in which bony union is claimed to have taken place. Two years after the accident the patient died of phthisis, and Mr. Wheeler was fortunate enough to secure the specimen. This was submitted to Prof. Macalister for examination, who reported as follows: "I have macerated and examined the patella you sent me. Having cut it longitudinally, I find it to be bony throughout. The median half I have cleaned, and removed from its back the articular cartilage. It is a perfectly continuous bone, and shows a ridge of new bony matter across its articular face. The lateral half I have only slightly cleaned, but the union in it is very distinct and unmistakable. The sulcus at the upper and outer angle was filled by a mass of fibro-cartilage." This is one out of four cases which Mr. Wheeler has treated by his splint; the clinical results in the other three cases have been

entirely satisfactory, and he feels confident of bony union in all. Mr. Butcher has used the splint three times, and confirms the advantages claimed for it. The apparatus consists of a box splint for securing the leg, which may be elevated or lowered at pleasure, and two metal plates, softly padded, secured, one above and one below the patella, by leathern straps. These plates are approximated by means of a chain and windlass, and maintain the fragments in perfect juxtaposition.

THE TREATMENT OF DELIRIUM TREMENS.—Dr. George W. Balfour (*Lancet. Bost. Med. Journal*,) describes the method adopted by him for the treatment of delirium tremens at the Royal Infirmary, Edinburgh, during the past nine years. He points out the tardy appreciation of the fact, so clearly shown by Dr. Ware, of Boston, fifty years ago, that delirium tremens runs its natural course in from sixty to seventy-four hours, and that the remedies employed are often more dangerous than the disease. Such are large and repeated doses of opium and the large quantities of tincture of digitalis recommended by Mr. Jones, of Jersey. Dr. Balfour has found bromide of potassium in half-drachm doses given every hour, for ten or twelve hours perhaps, effectual in many cases. Chloral hydrate, however, is the main-stay, in doses of forty grains every hour for three hours if necessary, and only in the rarest instances has the third dose been required. One hundred and twenty grains, in divided doses, is not considered by the author a dangerous amount, as elimination goes on at the rate of about seven grains an hour. Dr. Balfour regards the use of alcohol after the beginning of an attack, or when an attack is threatening, as entirely bad, and has found it necessary in the course of the disease in the rarest cases only, when the exhaustion is great. Then it delays the cure.

PROLAPSE OF THE RECTUM IN INFANTS.—In a recent number of the *Wiener Medizinische Zeitung* Dr. Basevi suggests an improved method of treating this troublesome affection, which he finds most successful.

He cauterizes the mucous membrane of the intestine lightly with nitrate of silver, and replaces the gut. Subsequently enema of tannin, alum and ice-water are ordered, together with very strict diet, with a view to prevent enteritis. Should these measures fail and the intestine continue to come down, he uses his bandage as follows. The child is held by two nurses, with its buttocks up, over the bed, one securing the upper portion of the body, the other the slightly abducted knees somewhat up in the air. This position is most favorable for the reduction of the prolapsed rectum, because the child cannot bear down. After reposition, the surgeon stands on the right side of the bed with the thumb of the left hand pressing

the child's left buttock to the right, while the fingers bring the right buttock toward and against it. With the right hand several strips of plaster of some two finger-breadths are drawn from below upward and outward, overlapping one another, across the buttocks, from one trochanter to the other. The strips should approach the perineum as closely as possible. As a support to the plaster, a spica bandage of two or three finger-breadths is run over the lower part of the body. A gutta-percha or waxed paper covering can be used to keep the buttocks clean during defecation, and this bandage can be retained in position for a couple of weeks. If diarrhea be present, astringent enemata may be employed; if constipation, laxative enemata; and these should be given by the physician himself, for fear of disturbing the bandage, which can be changed without difficulty when necessary.—*Press and Cir.*

PILOCARPINE AS A REMEDY FOR BALDNESS.—It is announced by Dr. G. Schmitz (*Berl. Klin. Wochenschrift*, 27th January, 1879), that pilocarpine possesses, in a remarkable degree, the power of reproducing the hair on a bald surface, in certain instances at least. The cases on which this statement is based are as follows:—A man, 60 years of age, completely bald (with the exception of a few white hairs on the occiput), was operated upon for double cataract. After the operation there remained, in one of the pupils, a fragment of membrane, to cause the absorption of which the author administered, within a period of fourteen days, three subcutaneous injections of the muriate of pilocarpine. The membrane disappeared; but this was not all. At the same time the head became covered with a thick crop of hair, which grew so rapidly that, at the end of four months, no trace of baldness remained. The new hair was partly white and partly black. The second patient, aged 34, suffering from an affection of the retina, presented on the crown of his head a perfectly bare patch, as large as an ordinary playing card. Two injections of the same substance not only cured the ocular affection but produced an abundant growth of hair on the bald part of his head. Unfortunately, Dr. S. gives no information as to the nature or causes of the baldness in his two patients.—*L'Annee Medicale, March, 1879.*

FATTY EMBOLISM.—Prof. Richet reports the following case (*Le Mouvement Méd.*, 1879, p. 77.) (*Med. Times*.) A roofer had fallen from a height, fracturing both femurs, the right seriously wounded, and with the entry of air into the tissues. On examination, the blood flowing from the wound appeared covered with drops of oil, showing rupture of the medullary canal of the femur with communication with the wound. Various other fractures had occurred. The extremities were cold,

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as was also the entire left arm, although no injury had occurred in this limb. There was a total absence of pulse. Although shock would suffice to account for the coldness, yet there was reason to believe in the existence of fatty embolism. Microscopic examination of the blood, previously treated with osmic acid, which, as is known, colors fatty matter but does not color any of the normal constituents of the blood, showed the presence of oil-globules. These were very numerous in the femoral vein. The man succumbed to asphyxia. Prof. Richet believes fatty embolism to be closely connected with other forms of absorption of more or less septic fluids by the veins. He also refers to the thesis of Theodore Flournoy, of Strasbourg, published last year, in which ten cases of fatty embolism are reported.

GELSEMIUM IN NEURALGIA.—Professor Massini, of Basle, recounts his experience of the use of this drug in the treatment of eighty cases of neuralgia of the trigeminus. In cases of this sort Dr. Massini gives twenty minims of the tincture every half hour up to three doses, and he finds that the first dose usually affords relief, and that that the pain rapidly subsides after a second or third dose has been taken. He has never found it necessary to exceed sixty minims, and only in one case did this quantity produce unpleasant head symptoms. The cases in which the remedy produces most benefit are those of simple rheumatic neuralgia of the alveolar branches of the trigeminus; in those it rarely fails. It also sometimes relieves the pain remaining after the stopping of a carious tooth. Where there is any inflammatory affection of the bone or periosteum, no good can be expected from the remedy. The medicine may, if necessary be repeated several days in succession, the active principle rapidly passing off by the kidneys.—*Dublin Journal of Med. Science (Lancet and Clinic.*

INJECTION OF LINSEED OIL IN CHRONIC CYSTITIS.—The following is from the *New York Medical Journal*. A man, aged twenty-nine years, entered hospital December 23d, suffering from cystitis of six months standing. Micturition occurred every hour both day and night. The urine contained a large amount of urine and pus. The ordinary remedies were used without benefit, and finally Dr. Howe proposed to distend the bladder and keep it so long as possible. The agent he used was linseed oil; eight ounces were used at each daily injection. After the treatment had been continued for a week, the cystitis improved. The pus and mucus disappeared. Micturition occurred only six times in twenty-four hours, and was unattended with pain.

Another patient, aged forty-nine years, was admitted with cystitis of three month's standing.

Urine contained both pus and mucus. Micturition was painful, and occurred eighteen times a day. The injections of linseed oil were used as in the previous case. After eight days the pain abated, and he was able to hold his urine for two hours; but at that time he had left the hospital, and has not reported since.

AN OPERATIVE METHOD TO COMBAT COMMENCING PYEMIA.—H. Kraussold in v. Langenbeck's Archives, xxii, page 965, says (*Centralblatt, Cin. Lancet.*) "In a man 29 years of age at the Erlangen clinic, amputation was performed just above the knee joint on account of a badly united fracture complicated with an aneurism of the posterior tibial artery. Repeated and alarming hemorrhage followed, and the manipulations necessary to control it in a manner destroyed the antiseptic precautions so that on the fourth day pyæmia supervened with a chill. As the cause of the same was supposed to be a commencing suppurative thrombus of the vein, the latter was opened and a discolored fluid along with the contents of a thrombus escaped. Immediately after this the vein was exposed to Poupart's ligament, ligated at two points, and the intervening part, from two to three centimeters in length, removed. The femoral artery was also ligated in order to guard against further hemorrhage. The temperature of the body sank at once to the normal, and the patient recovered without further untoward symptoms. Ligation of the vein under similar circumstances, has been performed before with good results, and as soon as the diagnosis is established one should not hesitate to resort to it.

TREATMENT OF OBSTINATE SCIATICA BY SUBCUTANEOUS INJECTIONS OF NITRATE OF SILVER.—(*Med. Record, N. Y. Med. & Surg. Jour.*, March, 1879.) Dr. Dureau has collected cases of obstinate sciatica treated in the Parisian hospitals by Damaschine and Guerin-Rose on Luton's plan, from which has been deduced the following conclusions:

1. Subcutaneous injections of nitrate of silver are to be recommended in cases of inveterate sciatica.
 2. These injections, though irritating to the tissues, may be undertaken without any fear of evil consequences.
 3. The method renders it possible to reach the diseased spot and to insure the action of the remedy.
 - Improvement and recovery take place rapidly under this treatment.
 5. The subcutaneous injections of lunar caustic are more active and less dangerous than the actual cutting which is so frequently recommended for sciatica.
- A fifteen per cent. solution of nitrate of silver

is made, of which from 15 to 20 drops are inserted deeply in the region of the sciatic nerve.

GYNECOLOGY IN LUNATIC ASYLUMS.—Dr. Seignun remarks: "Dr. Storer has written a small work on the influence of uterine diseases over mental troubles, and has shed considerable light on the subject. I have no doubt that to-day a large number of female patients in asylums need a specialist, and many could be cured by the replacement of a uterine version, or the curing of an inflammation. Superintendents of asylums, as a rule, are incapable of attending properly to these maladies, and they have an aversion to calling in an outsider. Some have a great repugnance to such cases, for fear of being accused of assault. For very many reasons every asylum should have consulting physicians and surgeons. Dr. Storer cites case after case, showing a cause of insanity to be due to some uterine difficulty, and European statistical reports point the same way."—*Hosp. Gaz.*

PURULENT OTITIS MEDIA; TREPHINING OF MASTOID CELLS; PARALYSIS OF THE FACE.—A man was admitted to the Charity hospital (*N. Y. Medical Journal*) suffering from purulent otitis media, with facial paralysis. The ear was suppurating freely, but there was marked swelling over the mastoid portion of the temporal bone. It was considered best to trephine the temporal bone. After an opening was made a large amount of pus escaped. Injections carried into the ear escaped through the opening in the bone. The pain in the temporal region was relieved after the operation. An important point in the case was the paralysis of the muscles supplied by the facial nerve. The uvula was turned to one side, showing that lesion in the nerve occurred beyond the origin of the chorda tympani nerve.

EMMET ON THE USE OF ERGOT.—Emmet, in his recent work on Gynecology, says: "From the injudicious use of ergot in large quantities much harm has resulted, without the relation of cause and effect being recognized. But, as a rule, great benefit follows its use when administered in small and continual doses, with the view of acting on the coats of the vessels and of exciting only moderate contraction of the uterine tissue. Ergot should never be given in large doses until after the uterine canal has been dilated, and until it be found that the tumor projects sufficiently to warrant the belief that it may become pedunculated by uterine contraction. I have committed this error myself, and have likewise frequently observed it in the practice of others. Should a tumor be found buried in the uterine walls, or so situated that it cannot become pedunculated, large doses of ergot can certainly accomplish no good. But, on the contrary, if the uterus be thus excited to violent contraction with-

out a purpose, as it were, an increased quantity of blood will naturally flow to the parts, often with the direct result of causing cellulitis, and even peritonitis. By thus setting up a new source of irritation we will establish the most favorable condition for increasing the growth of the tumor."

PLUGGING THE NASAL CAVITIES.—The following method of arresting epistaxis was pursued with much success by the late Dr. T. H. Jewett, a distinguished Maine physician:

Roll up a lock of cotton into a cylinder an inch or an inch and a half in length; tie a strong thread to the middle of the roll; bring the two ends of the roll together, and then, opening the nasal orifice, pass the middle or folded part of the roll into the nostril; next, with the blunt end of a lead pencil, press in the cotton roll slowly, along the floor of the nose, an inch or more and rest. If the blood passes down the throat, you may be sure the bleeding spot is behind the roll; so push in your roll further, and the blood will cease to pass behind. Then, holding on to the string, pass some loose cotton into the nostril and push it down to the plug. The cotton will swell with the moisture and arrest the hemorrhage. In a day or two the natural secretions of the nasal surfaces will loosen the plug, and it may be easily removed by the string.—*Med. Brief.*

The *Lancet* gives the following manner of diagnosing thoracic aneurism: "Place the patient in an erect position, and direct him to close his mouth and raise his chin to the fullest extent; then grasp the cricoid cartilage between finger and thumb, using gentle pressure upward; if dilatation or aneurism exist, aortic pulsation will be distinctly felt by transmission through the trachea." The plan was suggested by Surgeon-Major Oliver.

THE PSYCHOLOGY OF HAMLET.—Dr. Forbes Winslow (*Med. Press and Circulae*) says in regard to the Psychology of Hamlet, that "there is no evidence to prove that Hamlet feigned madness, and that, tracing the delineations of his disposition carefully, there are conclusive facts of the existence of mental aberration followed by complete restoration to health previous to the termination of the play."

HAVEN'T TIME TO READ.—The man who gives as his excuse for not subscribing to a new journal, or for dropping one or more that he is already taking, "I haven't time to read so many," is, in nine cases out of ten, a poor tool. The busiest, most successful men in the practice of medicine are those who read most and write most; it is only the dawdler and the drone who "can't find time to read."—*Maryland Med. Jour.*

THE CANADA LANCET.

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TORONTO, JULY 1, 1879.

NATIONAL BOARD OF HEALTH.

Our medical friends in the House of Commons have not yet succeeded in pressing upon the Dominion Government the propriety of establishing a national Board of Health. Although this is one of the most important subjects which can claim the attention of our legislators, it has not yet received that consideration which its very great importance demands. Amidst the conflicting interests of political parties, it seems almost impossible to arouse any lively interest in anything outside of the narrow circle of party politics. This is one great question, however, upon which all parties might meet on a common platform, and, setting aside for the time all other considerations, address themselves to the great question of national health.

The United States Congress with praiseworthy solicitation for the health and lives of the people, has recently confirmed an act for the establishment of a National Board of Health, which must be regarded as the most important measure that has, up to the present time, been adopted in the United States. The act consists of four sections. The first section provides for the establishment of a National Board of Health, to consist of eleven members. Seven are appointed by the President with the advice of the Senate, and are to receive two dollars a day with reasonable expenses during the time they are actually engaged in the duties of their office. The remaining four members are to consist of a medical officer each, of the army and navy, a medical officer of the marine hospital service, and one officer of the Department of Justice; these members receive no compensation. The second section determines the duties of the Board, in matters affecting the public health, the obtaining

of information and advising the departments of the government and the executives of the several States. The third and fourth sections require that the Board of Health, with the assistance of the Academy of Sciences, which is to co-operate with it, shall report to Congress at its next session, a full statement of its proceedings, and also a plan for a national health organization after consultation with the principal sanitary organizations and sanitarians of the several States. Special attention is also to be given to the subject of quarantine, both maritime and inland. The sum of fifty thousand dollars has been appropriated for the expenses of the board, and the carrying out of the purposes of the act.

The government and the people of the United States are to be congratulated upon the course which they have taken in the important matter of public health, and we trust that the Canadian Government will follow their good example.

The members of the National Board of Health, recently appointed, are as follows: Drs. S. H. Beemis, New Orleans; Bowditch, Boston; Stephen Smith, New York; H. A. Johnston, Chicago; I. L. Cabell, Virginia; T. S. Verdi, Washington; R. W. Mitchell, Memphis; Dr. Hamilton, Marine Hospital service; Drs. J. S. Billings and Grinnell of the army and navy, and Gen. Phillips of the Department of Justice.

THE McDOWELL MONUMENT.

The dedication of the monument to the memory of Dr. Ephraim McDowell the father of ovariectomy took place at Danville, Ky., on the 14th of May. The funds for the erection of the monument were subscribed solely by members of the medical profession of the State of Kentucky. There was an immense concourse of people present, among whom were Prof. Gross of Philadelphia, Dr. Sayre, President of the American Medical Association, Dr. Kimble, of Massachusetts, Dr. Gibney, Dr. Yandell, Dr. L. P. Blackburn, and the Governor and Secretary of the State. Letters were also received from Drs. Spencer Wells, Bryant, Thornton, Thomas, Richardson, Parvin, and Holmes.

The oration was delivered by Prof. Gross, whose services had been secured upon the death of Dr. Washington Atlee, who had been chosen to deliver the address. The oration will be published in the

memorial volume of the exercises. Dr. Sayre was also called upon to make some remarks in the course of which he said :

"We can scarcely comprehend the greatness of this man's mind, and the truly wonderful genius of McDowell, until we stop to consider who he was, what he did, and when and where he did it. A village doctor in the back-woods frontier, surrounded by Indians and the buffalo, almost beyond the bounds of civilization, with no books to refer to, with no precedent to guide, with no one to consult but his own unaided judgment, with no one to share the responsibility if unsuccessful, unaided and alone assumes the responsibility of removing a disease which up to that time had been considered absolutely incurable. Think for a moment what would have been the result of failure—a coroner's jury and a verdict of wilful murder—which at that time would have been pronounced correct by the entire medical profession throughout the civilized globe. All this he dared and did assume, because his clear intellect had reasoned out his plan of procedure, and his careful dissection had pointed out to him the path to victory. And now every intelligent surgeon in the world is performing the operation as occasion requires, until at the present time, as Dr. Thomas has stated, forty thousand years have already been added to the sum of human life by this one discovery of Ephraim McDowell.

Another fact strikes me very forcibly, Mr. President, and that is, the heroic character of the woman who permitted this experimental operation to be performed upon her. The women of Kentucky in that period of her early history were heroic and courageous, accustomed to brave the dangers of the tomahawk and the scalping-knife, and had more self-reliance and true heroism than is generally found in the more refined society of city life ; and hence the courage of Mrs. Crawford, who, conscious that death was inevitable from the disease with which she suffered, so soon as this village doctor explained to her his plan of affording her relief, and convinced her judgment that it was feasible, immediately replied, "Doctor, I am ready for the operation ; please proceed at once and perform it." All honor to Mrs. Crawford ; let her name and that of Ephraim McDowell pass down in history together as the founders of ovariotomy.

At the close of the exercises Dr. Cowling, as the representative of the Kentucky State Medical Society, presented Prof. Gross with McDowell's door-knocker, as a memento of McDowell, and of the occasion which had brought the former to Kentucky. Dr. Cowling, in the course of his remarks, said :

"I wish that the magician's wand were granted me awhile to weave a fitting legend around this

door-knocker which comes from McDowell to you, Dr. Gross. There is much in the emblem. No one knows better than you how good and how great was the man of whom it speaks. It will tell of many summons upon mercy's mission which did not sound in vain. Oftentimes has it roused to action one whose deeds have filled the world with fame. A sentinel, it stood at the doorway of a happy and an honorable home, whose master, as he had bravely answered its signals to duty here below, so when the greater summons came he as trustfully answered that, and laid down a stainless life

It belongs by right to you, Dr. Gross. This household genius passes most fittingly from the dearest of Kentucky's dead surgeons to the most beloved of her living sons in Medicine. She will ever claim you as her son, Dr. Gross, and will look with jealous eye upon those who would wear you from her dear affection."

STUDY OF DISEASES OF THE EYE AND EAR.

In a recent number of "*Le Progrès Medical*" is an interesting article on this subject from which we make a few extracts. The diseases of the ear, notwithstanding their frequency and gravity, are often neglected by the generality of practitioners, as much as, or even more than diseases of the eye. However, like the latter they have been studied as a specialty by such eminent surgeons as Toynbee, Troltsch, Duplay, &c., who have very greatly improved on their treatment. It is nevertheless a matter of regret to notice that the generality of medical men take little interest in this study which is neither very tedious nor very difficult, and it is very undesirable that students should complete their medical studies without some precise ideas on these ailments.

This important question would appear to occupy the attention of foreign physicians ; thus we see Prof. Troltsch, whose labours on this subject are extensively known, claims for diseases of the ear the position which is due to them in a curriculum of medical study. In a paper on "The importance of understanding the surgery of the ear in the schedule of subjects obligatory at examinations," not only does he seek to demonstrate the utility of this study, but also indicates the means to be employed for forcing students to acquire a practical knowledge of these diseases. In this paper, which is addressed to the Imperial Chancellor, Prof. Von

Troltsch maintains that it is not only desirable but necessary in the interest of the State that every physician entitled to practice should be capable of diagnosing and treating diseases of the ear. He calls to mind that recently a special examination on the diseases of the eye has been rendered obligatory in all the German Universities, and that this new measure has been instituted for the following reasons: 1st. The great prevalence of diseases of the eye. 2nd. The very serious consequences that these diseases may have over individuals, and indirectly on the State. 3rd. The serious consequences and the prejudices caused by these maladies may diminish in direct proportion to the number of physicians who may become capable of diagnosing correctly and of treating the different forms of these maladies. The author arrives at the conclusion that the same reasons which necessitate a knowledge of the diseases of the eye, plead in favour of those of the ear. In regard to the first conclusion, he does not hesitate to state that diseases of the ear are of much more frequent occurrence than is generally supposed, and for the following reasons; they are not visible and easy to recognize like the generality of the diseases of the eye, therefore the acuteness of hearing may be reduced in notable proportions, before the fact may be sensible in the ordinary relations of life. He shows in a very conclusive manner how these affections are frequent in infancy and childhood as a sequence of small pox, measles, scarlatina, hooping-cough diphtheria and scrofula. In the adult they result principally from tuberculosis, syphilis, pregnancy, and a great number of accidental causes.

The number of individuals who die from the consequence of disease of the ear is sufficiently considerable, and it is certain, that in a great number the treatment, if properly conducted, would prevent a fatal termination. Comparing the results to those given from diseases of the eye, the author considers serious consequences as much less frequent than in diseases of the ear.

The author believes that he is below the truth in asserting that of the 38,489 deaf and dumb persons existing in Germany, 15,000 owe their infirmity to diseases of the ear supervening after birth, and that a fifth, or 3,000 of these would, by speedy and energetic treatment of the affection of the ear, have escaped deafness, and would, at the least, have preserved a degree of auditory acuteness suf-

ficient for the comprehension of verbal language, and for profiting by ordinary education. He adds that it is highly necessary to give great attention to affections of the ear following the acute exanthemata, for these very frequently cause deafness. As regards the third point mentioned above, Troltsch is of the opinion, that the more surgeons there are capable of treating affections of the ear, the less will be the number of reputed incurables. He concludes therefore by desiring that a new regulation for examinations be established. Beyond being content with subjection of the candidate to an oral examination on the surgery of the ear, he would introduce a practical examination. The candidate should give substantial proof that he is capable of examining the tympanum in the living subject, and of describing its appearance; he should also be required to practice catheterism of the Eustachian tube on both the living and the dead subject, and to perform sundry delicate operations on the ear.

It is therefore obvious that he assimilates, with reason, the affections of the eye and ear, from the point of view of their importance, especially in young persons. All who read this memoir will see how truly its author has written, and that the course advised by him is the only efficacious means for attainment of the desired end, in other words physicians should no longer disregard the study of these affections. We shall be only too happy if these allusions to instruction on these diseases, may contribute to the introduction into our own faculties of a compulsory course on this important and long neglected branch of medical education.

DIFFERENTIAL REGISTRATION FEES.

At the late meeting of the Ontario Medical Council, a by-law was passed making a general registration fee of \$400 and granting a rebate of \$350 to Canadian graduates. This is intended to prevent British graduates, and Canadian M.D's possessing British qualifications, from practising in Canada, except on payment of a registration fee of \$400. We question, however, very much, whether such an arrangement as this will hold water. We believe it is *ultra vires*. The act provides that all who have received their qualifications prior to the 1st of July 1870 shall be admitted on payment of a registration fee of \$10, and no differential registration fee was contemplated.

Again, if the Council has power under the act as it at present stands, then why was an amendment introduced into the Ontario Legislature to give power to charge British graduates a registration fee of \$400?

We desire to uphold the Medical Council in its efforts to elevate the standard of the medical profession in Ontario, and to establish a uniform curriculum and standard of examination, but we do not at all sympathize with it in its attempt at exclusiveness and trades-unionism. The action of the Council in regard to this question is much to be regretted, as it is not only damaging to its prestige but also positively certain to lead to further litigation, a course which the funds of the institution will not warrant. If the Ontario Medical Council can enforce the payment of differential registration fees, then there is nothing to hinder other Provinces of the Dominion from doing the same thing. If the Council can charge \$400, why not \$1,000 or \$10,000, and absolutely prohibit all British practitioners?

We would not have alluded to this subject, as a matter of very great moment, were it not for the fact that such a policy on the part of the Council is likely to destroy all hope of obtaining reciprocity in medical registration between Canada and the mother country.

A NEW METHOD OF PERFORMING TRACHEOTOMY.—At the meeting of the American Medical Association, Dr. Henry Martin, of Boston, made the following suggestions with regard to tracheotomy. He considers tubes entirely useless, and performs the operation as follows:—The incision is made in the usual manner down to, and through the trachea; a central stitch is then introduced into each side of the wound through the tissues, including the trachea; this is loosely tied so as to form a loop, through which a long strip of adhesive plaster is placed, and upon this a very slight traction is made, the plaster being crossed at the back of the neck. This keeps the wound open, and unless the traction be too strong, the loops will not cut through for two or three weeks.

THE SPHYGMOPHONE.—The *London Lancet* for May 24th gives a brief description of a new invention by Dr. Richardson, which he calls the Sphygmophone. The apparatus is a combination of

Pond's sphygmograph, and the telephone, so adapted that the tracings are accompanied by sound, which may be distinctly heard by an audience of several hundred people—or by the extension of the telephone wires, a mile or two away from the patient. The sounds produced by the natural pulse are said to resemble the words "bother it."

COMPRESSION OF THE AORTA IN UTERINE HEMORRHAGE:—Dr. Griffith, in the *Obst. Four. Great Britain and Ireland*, reports a case where the life of a patient was evidently saved in post partum hemorrhage, by compression of the abdominal aorta. Compression of the abdominal aorta in uterine hemorrhage is not altogether new, although the plan recommended by Dr. Griffith is somewhat out of the ordinary, and is deserving of consideration. When the abdominal parietes are dense and the omentum covered with fat, so that compression cannot be readily exercised directly, he recommends the introduction of the hand into the uterus, in order to compress the aorta through the posterior wall. The presence of the hand in the uterus also acts as an irritator and favors contraction. A full report of the case will be found in another column.

TRINITY COLLEGE CONVOCATION.—The following gentlemen received their degrees in medicine at the convocation of the University of Trinity College, Toronto, held on the 7th ult.

M.D.—J. D. Bonnar, W. H. Doupe, W. A. Daffoe, K. Henderson, A. M. Lynd, and R. A. Ross.

M.B.—J. D. Anderson, J. W. Caughlin, R. E. Eccles, W. B. Duck, A. C. Graham, A. J. Geikie, T. A. Kidd, D. Lowrey, R. P. Mills, J. A. McKinnon, J. J. McIlhargey, C. O'Gorman, G. O'Reilly, E. Prouse, J. W. Sharpe, and E. M. Thuresson.

HONORS.—Gold Medallist, R. P. Mills; Silver Medallist, J. A. McKinnon. Certificates of Honor, W. B. Duck, J. N. Caughlin, J. J. McIlhargey, T. A. Kidd, and C. O'Gorman.

THE DETECTION OF SOUND BY THE TEETH.—That sound may be detected and conveyed to the sensorium by means of the teeth, and that the faculty of hearing is improved by opening the mouth is well known, and often practically illustrated in public audiences, where spell-bound hearers engaged intently in listening are often described as sitting with open mouths, as well as

cars, endeavoring to catch distinctly every word uttered by the speaker. Plumbers, and those employed in water works are sometimes enabled to tell whether water is passing through a pipe by resting the teeth on the stop-cock or by holding a small metal rod in the teeth, the other end of which rests on the stop-cock. When this is done and the cars stopped so as to exclude all other sounds, they are enabled to hear the flow of water through the pipe no matter how small the stream.

MONTERRAT LIME-FRUIT JUICE.—At this season of the year when drinks of different kinds are in good demand, we would desire to call the attention of the profession in Canada to the above preparation, introduced by H. Sugden Evans & Co., of Montreal, who are the sole consignees. It is a pure, unadulterated, and very superior brand of lime juice, and one which the profession can confidently recommend for use, to their patients. It most effectually disguises the taste of quinine, and has been successfully combined with it, in the form of a palatable "Quinine Cordial," manufactured by the above firm. Each wine glassful of the cordial contains 1 grain of quinine, and is entirely free from alcohol. Both these remedies will be found especially useful in many cases, at this season of the year.

BENZOATE OF SODA IN PUERPERAL FEVER.—Dr. Peteson of Gravenstein, in the *Centralblatt* for March, recommends benzoate of soda in the treatment of puerperal fever. He used it in doses of from 1 to 5 grammes (15 to 75 grains) with the most favorable results. It reduced the temperature and pulse, and removed the sordes of the mouth after the administration of a few doses.

FLORIDA WATER, HOW MADE:—

| | | |
|-----------------------------|----|--------|
| R Oil Bergamot, | 3 | iv. |
| " Lemon, | 3 | vi. |
| " Cloves, | 3 | vi. |
| " Cinnamon, | 3 | vi. |
| " Lavender, | 3 | l. |
| Spts. Vin. Rect., | 3½ | galls. |
| Water, | 6 | pints. |

Mix, and after two days of frequent agitation, add water to suit.

ROYAL COLLEGE OF PHYSICIANS AND SURGEONS, EDIN.—Dr. A. M. Gibson of Perth, Ont., has successfully passed the examination and was admitted to the double qualification L.R.C.P. and L.R.C.S. Edin. in May last.

TRINITY MEDICAL SCHOOL ENLARGEMENT.—Owing to the large and yearly increasing number of students attending this medical school, an enlargement of the school building has been rendered necessary. In consequence a contract has been given for the erection of a new wing, to be completed on or before the 1st of October, 1879. This addition will so increase the capacity of the present buildings as to give two lecture rooms, a new chemical laboratory, a new large dissecting room, lighted from the ceiling, a museum and reading room for students. The faculty of Trinity Medical School is determined to make every improvement necessary for the comfort and convenience of the large and increasing number of students that every year flock to her halls.

COLOTONY.—Five cases of colotomy for epithelioma and tumors of the rectum, are reported in the *Brit. Med. Journal* of May 31st, at the Middlesex Hospital under the care of Mr. Henry Morris, with four recoveries and one death. In the same are also to be found, the reports of two additional cases by Dr. Walters, read before the West Surrey District Association, one of which was successful. This operation when not delayed too long, affords great relief, and is the means of prolonging life even in some of the most unpromising cases.

ŒSOPHAGOTOMY.—Dr. A. B. Atherton, of Fredericton, N.B., assisted by Dr. Coburn recently performed the operation of œsophagotomy successfully, for the removal of a piece of bone which had become impacted in the œsophagus opposite the lower part of the neck. The patient made a very good recovery. The piece of bone proved to be a piece of a lamb's rib about an inch and a half in length with rough jagged ends.

MEMBERS MEDICAL ELECT.—The following medical gentlemen have secured seats in the Ontario Legislature in the recent general election: Drs. Baxter, Boulter, Barr, Cascaden, Harkin, McMahon, McLaughlin, Robinson, Robertson, and Widdifield.

Prof. Roberts Bartholow, A.M., M.D., of the medical faculty of the Medical College of Ohio, author of a work on *Materia Medica and Therapeutics*, has been appointed to the chair of *Materia Medica* in Jefferson Medical College, Philadelphia.

REMOVALS.—Dr. F. H. Howe has removed from Fordwich to Kettleby, Ont., where his success is already secured. Dr. Lynd, of Bond Head, has removed to Parkdale, Ont.

Dr. Pickup has removed from Pakenham to Brockville, Ont., where he intends to establish himself in practice. He was made the recipient of a complimentary supper and an address by his friends in Pakenham on the eve of his departure.

CORONERS.—J. H. Lowe, M.D., of Haliburton, has been appointed an Associate Coroner for the Provisional County of Haliburton.

A. Noxon, M.D., of Milford, has been appointed an Associate Coroner for the County of Prince Edward.

A. Robinson, M.D., of Clifton, has been appointed an Associate Coroner for the County of Welland.

APPOINTMENT.—Dr. G. P. Girdwood has been appointed Lecturer on Chemistry in McGill Medical College, in place of Dr. Craik, resigned.

Prof. Piorry, of Paris, the great advocate of mediate percussion, died recently at the advanced age of 85 years.

Reports of Societies.

HAMILTON MEDICO-CHIRURGICAL SOCIETY.

The regular monthly meeting of the above Society was held on the 3rd ult. The President, Dr. Geo. McKelcan, in the chair.

The paper for the evening was one by the Secretary, Dr. Woolverton, on "A Case of Poisoning by Paris Green." The subject of the case was a German woman, æt 65, who weary of her struggle for existence, and family and pecuniary burdens, secretly took what is at least estimated a quarter of a pound of the above poison, about 3 p.m., and died about 11.15 in the evening of the same day. The family never suspected that she had taken poison, and no medical man was sent for till about 10 o'clock in the evening, when she was found in a dying condition, in a state of complete collapse, though partially conscious till within a few moments of death. The suicide was a most determined one, as she positively refused to have a medical man sent for, and sent every one away

from her bedside, and desired to be left alone. The symptoms during life as far as could be gleaned were not very marked. She never complained of pain, though there is a history of some vomiting of green stuff, which they took to be bile, also some purging of watery stools, but apparently neither to an excessive amount. The great amount of poison taken, appears to have produced a state of collapse, and the short time in which death came, anticipated the full development of the symptoms of arsenical poisoning. The œsophagus and stomach were presented for inspection, and showed marked evidence of the effects of an irritant poison. The dependent part of the stomach especially, was of a grayish dusky hue, and softened, and its vitality nearly destroyed. The paris green was detected as low down as the descending colon. The bowels were pale, and contained much serous fluid. There was nearly a teacupful of the green sediment mixed with mucous still remaining in the stomach. There was some old standing disease of the kidneys. The right cavities of the heart were full of dark blood, the left ventricle well contracted. There were some atheromatous changes about the valves, but not to such an extent as to render them incompetent. The membranes of the brain were much congested, and the sub-arachnoid spaces filled with serum. The lungs were uniformly emphysematous, and completely filled the cavity of the chest. The usual tests for arsenic gave abundant evidence of its presence. The case is interesting from the amount of poison taken, and that poisoning was not suspected till the next day. She being in a dying condition without any marked symptoms except those of collapse, it was thought by the medical gentlemen in attendance that she was dying from cardiac thrombosis, but on learning more of the symptoms present during life, poisoning was suspected.

MICHIGAN STATE BOARD OF HEALTH.

The regular meeting of the State Board of Health was held in Lansing on the 8th of April. Dr. Kedzie, President, in the chair, and Dr. Baker Secretary. On motion Dr. Kedzie was re-elected President for the ensuing two years. The Secretary announced the passage of three new laws by the State Legislature. One of these provides that the council of each city and village shall be a Board of Health, unless there is other provision by

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special law, so that hereafter there is to be a local board of health in every township, village and city in the State; another makes it the duty of health officers of cities and villages to notify the prosecuting attorney of any neglect by householders or physicians to report cases of disease dangerous to the public health; and the third authorizes boards of health in cities, villages and townships to furnish free vaccination to the inhabitants thereof. The Secretary is to prepare a circular to health officers in cities, townships, and villages, calling attention to some of their duties under the new laws, and otherwise setting forth their duties as health officers.

A communication was received from Wm. M. Evarts, secretary of state, giving notice of a prize of £100 offered by the Royal College of Physicians of London for the best essay on hydrophobia, its nature, prevention, and treatment.

Dr. Lyster read a paper relative to the reclamation of overflowed or saturated lands. Reference was made to large tracts of lands on the Crapo farm, the Chandler farm, near Detroit, and descriptions given of the methods adopted and their results.

Dr. Kedzie referred to a paper by Judge Miller, of Bay City, on the same subject, giving his experience in the Saginaw valley, where he is reclaiming a section of very valuable land by protecting it with dykes, pumping the water out with steam pumps, and then keeping down the leakage by means of wind-mills.

Dr. Lyster made a report on the proposition, originally made by him, that the board shall offer to examine candidates in sanitary science and its different branches, recommending that the board make preparations for examinations by its different committees on subjects assigned to them, and that certificates be given to those who ask for and sustain examinations. It was thought that the publication of the examination papers would tend to increase the interest and knowledge concerning the subject among the people generally, and that the examinations would tend to secure throughout the state a class of physicians especially intelligent on the subject of sanitary science, and the public could have proof of their qualifications by means of these certificates. If the people see fit to select such persons for health officers, it would react well on the interest of public health, which it is the duty of the board to promote.

Dr. Baker favored it, and suggested that schedules of questions in each of the several branches of sanitary science be prepared for this purpose. The secretary was directed to procure copies of the examination papers in sanitary science from different colleges in foreign countries.

A communication was received from Dr. Peters, of Tecumseh, inviting the board to hold a sanitary convention at that place. The board voted to hold two public sanitary conventions next winter, and each member pledged himself to make them a success. It is desired to procure at these meetings the greatest collection of sanitary utensils which can be obtained, from a common pie-dish to the most elaborate apparatus for heating and ventilation. The time and place for holding such conventions will be announced as soon as determined; and it is hoped that dealers in sanitary appliances will exhibit their wares, and describe their uses and advantages. Drs. Hitchcock, Lyster and Baker were appointed a committee to prepare for the details of these sanitary conventions.

The Secretary presented a report of work done in the office during the quarter. It included the distribution of over 1,000 copies of the sixth annual report, the printing and mailing of about 2,500 blanks for return of annual reports of health officers, and clerks of local boards of health. A circular, relative to diseases in Michigan in 1878, had been sent to each correspondent, and replies from 26 persons had been received, examined and filed. Meteorological observations had been taken at the office during the quarter. Meteorological registers and reports of diseases had been received from observers, to whom, also, the regular distribution of blanks had been made. Work had been done in compiling the weekly reports of diseases, and the meteorological data for 1878.

Books and Pamphlets.

DANGERS TO HEALTH, A Pictorial Guide to Domestic and Sanitary Defects, by T. Frigden Teale, Surgeon to the General Infirmary, Leeds. London: J. & A. Churchill, New Burlington-st. Toronto: Willing & Williamson.

This is one of the most practically instructive books we have ever taken up. It is, in very truth, a "pictorial guide," for its fifty-five illustrative plates may, of themselves, serve as a treatise on the department of sanitation treated of without

even a word of textual explanation. He that but runs may read, and even the most obtuse reader cannot fail to comprehend the aptitude and force of the author's exposition of the most usual defects and faulty arrangements in modern house construction. Not only should every house *proprietor*, but every proposing tenant, secure and study well Dr. Teale's book, for beyond all question in both these classes a most deplorable amount of ignorance and apathy obtains in regard to house drainage and ventilation.

We cannot perhaps in a brief notice of the work, better indicate its general purport and utility, than by transcribing some of the titles given by the author to his numerous well-executed plates. House with every sanitary arrangement faulty; the same avoided; flame of candle at the key-hole, and the lessons it teaches; waste pipe of kitchen sink untrapped, and passing direct into drain; kitchen sink carried untrapped into soil pipe of water closet; the same, corrected; defects in lavatories and baths, and their remedies; unsiphoned traps; housemaid's sink pipe passing untrapped into a soil pipe; water-closet faulty; faults corrected; "save all" trap beneath water-closet, with untrapped waste pipe acting as ventilator of soil pipe; rats and the tale they tell; dish-stone in cellar leading into a drain, no wonder meat won't keep; cess-pool over-flowing, and results; broken junctions and results; common stone drain under tiled hall, leaking at every joint; "Jerry-builders" buying "seconds," a murderously instructive picture; drain made of seconds; manslaughter under an "alias"; road muck and midden refuse for mortar and plaster; six-inch pipe interpolated between two four-inch pipes; joints gaping from sinking of foundation; pipes laid with the flanges down-hill; newly laid drain blocked in syphon trap by stones, &c.; drain under a house, running up hill; drain "to be continued" sometime, (an abrupt conclusion at a solid rock, but a resumption with one joint beyond, to pass the Inspector); drains disconnected and mis-connected; poisoned by next door neighbor's drains; drain, making the best of a rock (going through by creeping over); economy in digging, at the expense of a fall in the drain (a too common trick); waste pipes cut off, but left open; hunting for drains, no plans (*a la* Dr. Workman at Toronto Asylum in 1853); terrace of the future on refuse of the past (plenty of such in Toronto); and many others of equal importance.

The titles of Dr. Teale's plates are no mere creations of his own fancy. Every one of them has been founded on closely observed facts, which he has detailed in clear and brief terms. The murderous frauds exposed in his 33rd, 35th, 36th and 37th plates, and the notes accompanying them, we should hardly have dared even to insinuate as practical realities, in so moral and pretentious a community as that of England. We have, to be sure, seen some very fishy work done, or attempted in Canada, but we do not believe that any Toronto contractor, or scamp housebuilder, has yet indulged in the road muck, or midden refuse line of mortar making. As to the sins of plumbers, both of commission and omission, to say nothing of their ignorance and indomitable self-conceit, we deem it a work of supererogation to trespass on the patience of our readers with any exemplifications, for very few persons who have had the advantage of their intimacy can require additional instruction.

In concluding this notice, we have to express our regret that Dr. Teale appears to be unacquainted with the invaluable system of downward water-closet ventilation, now so generally well understood here, and first introduced in the Toronto Asylum, many years ago, by Dr. Workman. The simplicity and cheapness of this system, which should be its highest recommendation, we are sorry to say, do not seem to render it acceptable to plumbers, some of whom take care to complicate it, at considerable cost, in such an antagonistic manner as actually to nullify its efficiency.

A TEXT BOOK OF PHYSIOLOGY. By J. Fulton, M. D., M.R.C.S., England; L.R.C.P., London; Professor of Physiology and Sanitary Science in Trinity Medical School, Toronto, etc., etc. Second edition, enlarged and revised. Illustrated. Philadelphia: Lindsay and Blakiston. Toronto: Willing & Williamson.

The following review of the above work on Physiology appeared in the *Toronto Mail* of the 24th of May:—

Dr. Fulton has been so long and so favourably known as a teacher of physiology in the Provincial capital, that any work from his pen on the particular branch of the medical curriculum with which his name is more specially associated, bears an impress of authority that cannot fail to secure for it respectful consideration. There is little in general to be said of manuals of this kind, one text-

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book differing but slightly from another as to subject matter, scheme of treatment and mode of presentation. But in this instance Dr. Fulton has made a departure from the usual practice, and a departure for which every student who takes his work in hand will not fail to be grateful. It has evidently been the doctor's aim, to compress into as small a space as would be consistent with proper treatment of his subject, an amount of information which more ambitious writers have spun out into more or less unwieldy tomes. Thoroughness in medical instruction is, of course, indispensable; but thoroughness is quite compatible with conciseness. The German author who began his history of the German people with the creation of Adam and Eve was irreproachably thorough: but he was also unnecessarily tedious. By a judicious blending of completeness and conciseness, Dr. Fulton has produced a book which must meet with general favor. He has shown himself a perfect master of the by no means universal, knack of "boiling down," while his successful experience as an instructor has been of material advantage to him in the matter of judicious selection. The result is a work which, within the compass of some four hundred pages of large print, covers the ground as effectually as older and more pretentious hand books, without sacrificing either smoothness of style, or completeness of information to conciseness. Another feature worthy of note is the large proportion of space devoted to histology—a subject the importance of which, in connection with the study of physiology, can hardly be overestimated. Many of the chapters of the book have been re-written since the appearance of the first edition, and considerable new matter has been added, bringing the work to a level with the most recent additions to the knowledge we possess of the phenomena presented by the human organism. The illustrations are limited to the mere necessities of the text, and several new ones are added to the usual stereotyped cuts to be met with in all works on this subject. Throughout the whole book the author has in each instance given, in the case of thermometric observations, both the Fahrenheit and Centigrade readings; and in that of the dimensions of the various histological elements, the measurements on both the English and the metric scales. Such a plan will recommend itself to the student, and is worthy of imitation until such time as the Centigrade ther-

момeter and the metric system shall have been universally adopted in scientific works. The appendix contains a number of useful tables of dimensions, specific gravities, etc.—another acceptable feature. The Text Book is intended more particularly for medical students, who will find that in its compilation the author has been closely attentive to their needs, and has devoted much careful labor to smoothing the difficulties in their path.

THE NATIONAL DISPENSATORY.—Containing the Natural History, Chemistry, Pharmacy, Actions and Uses of Medicines; including those recognized in the Pharmacopœias of the United States and Great Britain.—By Alfred Stillé, M.D., LL.D., Professor of the Theory and Practice of Medicine and of Clinical Medicine in the University of Pennsylvania; and John M. Maisch, Ph. D., Prof. of Materia Medica and Botany in the Philadelphia College of Pharmacy. With two hundred and one Illustrations. Philadelphia: Henry C. Lea; Toronto: Willing & Williamson.

This work is worthy of a more extended notice than the space now at our disposal will allow. The authors are both men of large experience, and we naturally expect a book of much merit, nor are we disappointed in that just expectation. The arrangement is most convenient, each article being alphabetically recorded. All medicines recognized by either the British or United States pharmacopœias as well as many unofficial remedies are here included. In this latter respect, it differs from the United States Dispensatory. All the necessary pharmaceutical manipulations are fully explained. In regard to the therapeutical value of medicines, in most cases it is based upon clinical experience, physiological investigations taking a secondary place.

Dr. Stillé gives a decided preference for ether as an anæsthetic over chloroform, as being much safer. The larger number of deaths from chloroform than from ether, warrants him in arriving at this conclusion. The illustrative cuts are good, and the mechanical execution of the work all that can be desired.

ELEMENTARY ANATOMY, PHYSIOLOGY AND HYGIENE, for the use of Schools and families.—By Edward Playter, M.D. Editor of the Sanitary Journal. Illustrated. Toronto: Hart & Rawlinson.

There is much need of a good elementary work on the subjects of Physiology and Hygiene,

adapted for use in public schools. This the author has endeavored to supply in this little volume of 168 pages octavo, just issued from the press. The work is divided into two parts; the first embraces anatomy and physiology, and the second is devoted to hygiene, in which the author has taken special pains to make the subject interesting, and of practical value to pupils and non-professional readers. It is entirely free from technicalities, and as a text-book for schools, we have no hesitation in recommending it in preference to any of the text-books on this subject now in use.

EPITOME OF SKIN DISEASES, with Formulae for Students and Practitioners. By Tilbury Fox, M.D., F.R.C.P., etc., and T. C. Fox, M.B., B. A. (Cantab), etc. Second American edition, enlarged and revised by the authors. Philadelphia: H. C. Lea. Toronto: Willing & Williamson.

The above work is a most excellent epitome of skin diseases. The present edition contains upwards of two hundred pages, which makes it nearly three times as large as the first edition. The authors are well known specialists on this subject, and this fact should enhance the value of the work. Among its pages will be found much that is useful to the everyday practitioner.

THE PRINCIPLES AND PRACTICE OF GYNECOLOGY.—By Thomas Addis Emmet, M.D., Surgeon to the Woman's Hospital of the State of New York, etc. With one hundred and thirty-one illustrations. Philadelphia: Henry C. Lea. Toronto: Hart & Rawlinson.

In the work before us, the author gives us the experience of twenty-five years' active and extensive practice in one of the largest hospitals for women in America. It contains upwards of eight hundred pages, the result of accurate and laborious observation, from which the regular practitioner cannot fail to draw many useful hints in obstetric surgery. The work contains numerous brief histories of cases of interest, statistical tables, &c., which present in a small compass what would have taken pages to give in detail. With the exception of two or three plates, and some instruments, the illustrations are original, from drawings by the author.

OUTLINES OF MODERN ORGANIC CHEMISTRY. By C. Gilbert Wheeler, M.D., Professor of Chemistry Chicago University. Philadelphia: Lindsay & Blakiston. Toronto: Willing & Williamson.

This new work by Dr. Wheeler is very highly spoken of by both teachers and students who have

used it. It is wholly modern in theory and methods, and is found to meet the requirements of the present teaching in this department. The work is much needed in our medical schools, and it will fulfill a useful purpose, if by its attractiveness, freshness and originality it induces the student to take a greater interest in this important though much neglected branch of study. The basis of the work is in part Riches' manual, but the author has improved it, by adding to it the results of the latest researches, and has made it a truly valuable and practical work.

Births, Marriages & Deaths.

At Cumminsville, on the 15th ult., the wife of Dr. Wm. McClure of twin daughters.

In Toronto on the 2nd ult., H. L. Gilbert, M.D., M.R.C.S., of Sherbrooke, Que., to Ellen Marian only daughter of the late Rev. J. Ambery, M.A., Oxon.

On the 10th ult., D. H. Dowsley, M.D., M.R.C.S., of Clinton, Ont., to Miss Alice, only child of James Agnew, Esq., Kingston.

On the 23rd of April, of typhoid pneumonia, W. C. Hagerman, M.D., of Lynedoch, Ont., in the 34th year of his age.

At Cairo, Mich., U. S., June 3rd, 1879, Henrietta, beloved wife of Dr. Wm. Morris, Sr., aged 60 years.

* * *Dublin Medical Press and London Lancet please copy.*

The deceased lady was a daughter of Capt. King, 28th Regiment, and sub-inspector of Her Majesty's Royal Irish Constabulary; sister of Dr. King, of Port Robinson, Co. Welland, Ont., who commanded the Welland Battery at the Fenian Raid in 1866, at Fort Erie, in which engagement he lost a leg; and sister of Dr. King, of Rugby, Eng., Staff Surgeon in the Royal Navy; and niece of Mr. Alex. Montgomery, late Lord Mayor of Dublin, Ireland.

Thirty-five years ago, Mrs. Morris, along with her young husband, came to this country, and settled in the village of Victoria, now Florence, in the Co. Lambton, where they lived and prospered for upwards of thirty years, then removed to Delaware near London, and afterwards to Cairo, Mich., on account of a portion of the family having removed there, and where one son was already in a lucrative practice, having followed in his father's footsteps, by choosing the medical profession.

As a wife and mother she had few equals; deeply devoted to her family and husband, she set an example of fidelity and devotion, long to be remembered by her many sorrowing friends left behind. Through all the pioneer life of her husband, she was his ever faithful companion and counsellor, ever ready to accompany him through rain and sunshine; by night or by day the summons to the bedside of the sick and distressed ever met a ready response in her sympathizing breast, and many can bear testimony to-day of this sympathy, having been partakers of its bountiful stores. Of her it may be truly said, she did not live for herself, but for others. May her future home be one of glory, where sickness and sorrow and death never enter, where all is peace and joy and love.

W. J. GRAHAM, M.D.

St. Catharines, June 20th, 1879.